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LOVELL'S SERIES OF SCHOOL BOOKS.

LOVELL'S  
ADVANCED GEOGRAPHY

FOR THE

USE OF SCHOOLS AND COLLEGES:

WITH

MAPS, ILLUSTRATIONS, STATISTICAL TABLES, &c.

*Authorized by the Honorable the Minister of Education for Ontario.*



"Geography and Chronology I may call the Sun and the Moon, the right eye and the left, of all History."—*Hakluyt's Voyages, Preface.*

MONTREAL:  
PUBLISHED BY JOHN LOVELL, AND FOR SALE AT THE BOOKSTORES.

1880.



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## PREFACE.

THE ADVANCED GEOGRAPHY now presented to the Public is intended to replace the GENERAL GEOGRAPHY, originally prepared in 1861, by J. GEORGE HODGINS, Esq., LL.D., Deputy Minister of Education for Ontario, to supply a special want which had long been felt in the British Provinces of North America. The merits of this pioneer Canadian Geography obtained for it a widely extended and long-continued popularity. As the science of Geography is progressive, therefore thorough revision of the work, to keep it abreast of the present state of geographical knowledge, was deemed necessary. The ADVANCED GEOGRAPHY is the result.

The work is divided into seven Parts. Part I. is introductory, and treats of Mathematical, Physical, and Political Geography; care has been taken to secure in it methodical arrangement and accurate terminology. In the remaining Parts, the Great Land Divisions of the Globe are described. The introduction to each consists of a comprehensive description of one of the Continents, and is followed by a less detailed description of the particular states or countries contained in the separate Land Divisions.

In the preparation of the work, the latest and most reliable authorities have been consulted. Owing to the progress of geographical discovery, political changes, the variable nature of the statistics, and other causes, these authorities were frequently found to disagree. In all cases of conflicting evidence, the statements in the text have been made after careful examination; and although perfect accuracy in regard to geographical details is hardly possible, an earnest endeavor has been made to obtain an approximation to facts.

The statistical information contained in tabular form in various parts of the work, as well as the statistical items given in connection with the topographical details, will, it is hoped, prove useful for reference.

New and finely executed maps have been prepared to delineate each of the Great Land Divisions of the Globe, the Dominion of Canada, the British North American Provinces, and the principal Countries of the world. Numerous beautiful illustrations and diagrams have also been introduced to elucidate the text.

To enhance the value of the work, a copious list of geographical names, with the pronunciation according to the best authorities, will be found at the end, pages 145-147.

The hope is expressed that the Public will find the ADVANCED GEOGRAPHY worthy of its generous reception.

TORONTO, 1st July, 1880.

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LOVELL'S

# ADVANCED GEOGRAPHY.

## PART I.



### 1. Definition.

GEOGRAPHY is the science which treats of the form and physical features of the earth and its various inhabitants and countries. The term Geography is derived from two Greek words: *ge*, earth, and *graphe*, writing.

**2. Divisions.**—Geography is divided into three branches, viz.: Mathematical, Physical, and Political.

**3. Mathematical (or Astronomical) Geography** points out the relation which the earth bears to the other bodies of the universe; describes its form, magnitude, and motions; and explains the various lines which, for scientific purposes and convenient reference, are imagined to be drawn upon its surface.

**4. Physical Geography** treats of the configuration and natural divisions of the earth's surface. Under the heads of *Geology* and *Mineralogy*, it treats of the structure of the earth's crust and of the materials of which it is composed; under the head of *Meteorology*, it explains the peculiarities of climate and atmosphere; under the heads of *Zoology* and *Botany*, it treats of the particular animals and plants found in different countries; and, under the head of *Ethnography*, of the races and varieties of man.

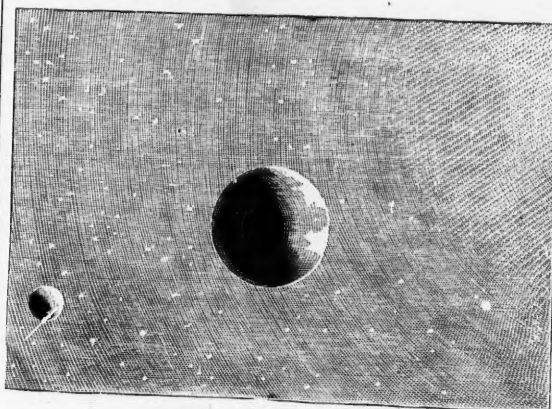
**5. Political Geography** points out the extent, population, commerce, government, religion, language, and civilization of the various empires and states into which the habitable parts of the World are divided. Under the head of *History*, it treats of the early settlement of countries, their forms of government, the progress of geographical discovery, and the social, moral, and political condition of the people.

**6. Single Illustrations** of each of these three branches may be thus given: (1.) That the earth is a globe, rotating on its axis once a day, is a fact of *Mathematical Geography*; (2.) That the earth's surface is diversified by river, lake, and mountain, is a fact of *Physical Geography*; and (3.) That the Dominion of Canada forms part of the British Empire, is a fact of *Political Geography*.

### I.—MATHEMATICAL GEOGRAPHY.

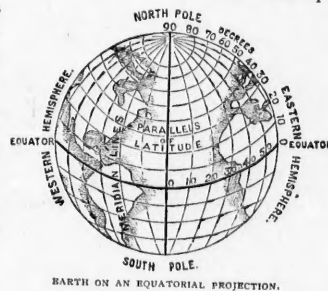
**I. The Earth's Appearance.**—The earth *appears* to be a large flat surface, diversified by hill and valley, lake and river, mountain and stream; and the sky seems to overarch it like a dome. In reality, however, the earth is round like a ball. Could we see the

earth from a convenient point in the heavens, it would present an appearance something like that in the following picture, with the sun, moon, and stars around it.



EARTH, MOON, AND STARS, IN THE HEAVENS.

**2. The Earth Represented.**—The earth is represented by artificial globes, maps, or charts. When a map is drawn on the usual equatorial projection, as in this Geography, the top indicates the north, and the bottom the south; to the right hand is the east, and to the left the west. The north point of the heavens is a point on the horizon almost directly underneath the pole-star; the south point is the point on the horizon diametrically opposite. The east and west are the places respectively at which the sun appears to rise and to set, on the 21st March and 21st September. The North, South, East, and West are, therefore, called the cardinal or chief points of the compass. The points which bisect the spaces between the cardinal points, viz.: the North-East (N. E.), South-East (S. E.), South-West (S. W.), and North-West (N. W.), are called the semi-cardinal, or collateral points. The remaining twenty-

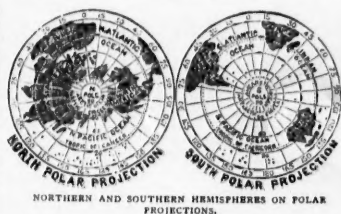


EARTH ON AN EQUATORIAL PROJECTION.



MARINER'S COMPASS.

four points of the compass are named according to their nearness to the cardinal or collateral points.



NORTHERN AND SOUTHERN HEMISPHERES ON POLAR PROJECTIONS.

A person turning to the sun at noon, faces the south; his back is to the north; his right hand is to the west, and his left to the east. Maps are also drawn on a polar projection, representing both the Northern and Southern Hemispheres.

**3. Designation.**—The earth is called a *PLANET* (*wanderer*) because it moves round the sun; a *WORLD*, from its being the abode of life; and a *GLOBE*, or *SPHERE*, from its being *rounded* in form.

**4. Form.**—The earth has the appearance of an orange, and is called an *oblate spheroid*; that is, a rounded body which has been slightly flattened at the top and bottom, or two opposite poles, owing to the rapidity of its spinning motion.

NOTE.—A *prolate spheroid* is a rounded body somewhat lengthened in the direction of its poles, and resembling in shape a lemon.

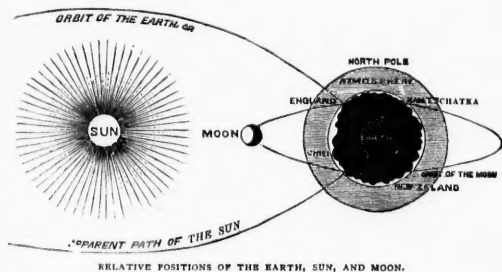
**5. The following Proofs** of the spherical form of the earth may be given: (1.) A much greater extent of the earth's surface is visible from the top of a mountain, than from a plain near the level of the sea; (2.) From sea, the tops of mountains, and from land, the topmasts of ships, are first seen; (3.) In cutting canals, a dip of about eight inches in a mile must be allowed in order to maintain a uniform depth



ROTUNDITY OF THE EARTH.

of water; (4.) The shadow which the earth throws upon the moon during a lunar eclipse is always circular; (5.) The sun rises earlier to those in the east than to those in the west; (6.) In going north or south, new stars appear to rise above, or to set below, the horizon; (7.) Travellers journeying continuously in one direction will return to the place from which they set out.

NOTE.—The first voyage round the world was made by Magellan's expedition, which sailed from Spain in September, 1519, and returned in September, 1522.



RELATIVE POSITIONS OF THE EARTH, SUN, AND MOON.

[This illustration shows one of the relative positions of the earth, sun, and moon, for they are continually changing. It also shows the orbits of the earth and moon; a profile of the land and water surface of the earth; the relative positions of certain places on the globe; the atmosphere which surrounds the earth; and the rays of light which shoot out in all directions from the sun.]

**6. Magnitude.**—The earth is nearly 25,000 miles in circumference, and 8000 in diameter. More exactly, the circumference of the earth is 24,902 miles; its equatorial diameter is 7926.59 miles, and its polar diameter 7899.58 miles. As the polar diameter is 27 miles less than the equatorial, the flattening of the earth is  $\frac{1}{298}$ . The area of the earth is about 197,310,000 square miles, and the solid contents about 260,613,000,000 cubic miles.

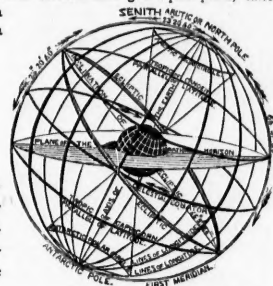
**7. Motions.**—The earth has *three* motions. (1.) It rotates on its axis in one day, or 24 solar hours. This motion is called its *diurnal* motion. Its direction is from west to east, which gives the sun and stars the appearance of revolving from east to west. The daily rotation of the earth produces day and night. (2.) It revolves round the sun in an elliptical path, or orbit, in 365 days, 6 hours, 9 minutes, and 10 seconds. This motion is called its *annual* or *orbital* motion. Its annual revolution, and the inclination of its axis to the plane of its orbit, at an angle of  $23^{\circ} 28'$ , cause the change of seasons, known as Spring, Summer, Autumn, and Winter. (3.) It moves through space along with the sun and other members of the solar system. This is called its *translatory* motion. This motion is at the rate of about four miles per second, or 126,000,000 miles a year, in the direction of the constellation Hercules.

**8. Imaginary Lines.**—The earth being shaped or rounded like a sphere, imaginary circles and other lines are drawn upon it for geographical purposes. Of these lines the following definitions are given:

(1.) A *circle* is a plane figure contained by one line which is called the *circumference*. (The circumference of a circle is divided into 360 equal parts, called *degrees*.\* A *minute* is the 60th part of a degree; and a *second* is the 60th part of a minute.†)

#### ASTRONOMICAL TABLE.

- 60 Seconds ( ' ) make a Minute ( ' ).
- 60 Minutes make a degree ( ° ).
- 360 Degrees make a Circle ( ○ ).
- 30 Degrees make a Sign of the Zodiac.
- 3 Signs, or 90 Degrees, make a Quadrant (or one-fourth) of the Zodiac.
- 12 Signs, or 4 Quadrants, or 360 Degrees, complete the Circle of the Zodiac.



CELESTIAL SPHERE: IMAGINARY LINES DRAWN ROUND A SMALL INNER GLOBE.

(2.) The *centre* of a circle is a point within the circumference so situated that all straight lines drawn from it to the circumference are equal.

(3.) A *diameter* is a straight line passing from one point of the circumference to another through the centre.

(4.) The diameter of the earth, about which it rotates, is called its *axis*. One end of this line is called the *north pole*, and the other end the *south pole*. *Radius* (pl. radii) is a straight line drawn from the centre to the circumference.

(5.) An *arc* is a portion of the circumference.

(6.) A *great circle* of a sphere is one whose plane passes through its centre.

(7.) A *small circle* is one whose plane does not pass through the centre.

(8.) The Great Circles are: The Equator, Horizon, Meridians, Ecliptic, and the Colures.

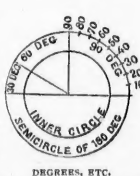
The *Equator* (Lat. *aequus*, equal) is a great circle, passing round the earth equidistant from the north and south poles. It divides the earth into a Northern and a Southern Hemisphere (Gr. *hemi*, half, and *sphaira*, a globe).

\* A degree is the angle at the centre subtended by the  $\frac{1}{360}$  part of the circumference, and does not vary with the size of the circle. The term *degree* is often used as an abbreviated mode of expression for *arc* of a degree. In this sense, if the circumference be 360 miles, then a degree of that circle will be one mile long; if the circle be 360 inches in circumference, then a degree will be one inch, etc. The circumference of the earth is 24,902 geographical miles, of 60 to a degree, or 24,902 English miles, of 69.17 to a degree. The equator consists of 360 degrees of 60 geographical miles each. Parallels of latitude, being smaller circles, have each degree, i.e., the arc of each degree, proportionately shorter, according to the size of the circle. (The division of the circumference of the circle into 360 equal parts took its origin from the length of the year, which was supposed to consist of 360 days, or 12 months of 30 days each.)

† The term *minute* is from the Latin *minutus*, a small part. The term *seconds* is an abbreviated expression for *second minutes*, or minutes of the second order.



GREAT AND SMALL CIRCLES.



**Latitude** (Lat. *latitudo*, breadth) is the distance of a place from the equator, and can never exceed 90°. When a place is north of the equator it is said to be in north latitude (marked N. Lat.); and when south of it, in south latitude (marked S. Lat.). Places on the equator have no latitude (marked Lat. o). On a map, latitude is marked in degrees at the sides; on an artificial globe, it is reckoned on the brass meridian.

The **Horizon** (Gr. *horizin*, to bound) is a great circle which separates the visible half of the heavens from the half which is invisible.

The horizon is either rational or sensible. The rational or true horizon is an imaginary plane running through the centre of the earth and continuing to the region of the stars. It determines the rising and setting of the heavenly bodies. The sensible or apparent horizon is a plane parallel to, and co-extensive with the rational horizon. It touches the earth at the point on which the spectator stands. As applied to the earth the sensible horizon is a small circle which bounds our view where earth and sky seem to meet. The plane of this horizon is the level surface on which the spectator stands. The cardinal points of the horizon are North, South, East, and West. Its poles are the Zenith and Nadir. The Zenith (Arab. *way of the head*) is the elevated pole of the horizon, or the point of the heavens exactly overhead. The Nadir (Arab. *down*) is the lower pole of the horizon, or the point of the heavens directly opposite to the Zenith.

A **Meridian Circle** (Lat. *meridies*, mid-day) is a great circle passing through the poles and cutting the equator at right angles. A meridian line is half of a meridian circle, or a semi-circle extending from the north to the south pole.



Every meridian circle divides the earth into two hemispheres, which, with respect to each other, may be termed Eastern and Western. The meridian circle 20° west of Greenwich divides the earth into the Eastern and the Western Hemispheres. A first meridian line is one fixed upon by astronomers in different countries, such as at Greenwich, Paris, Washington, Ferro in the Canary Islands, &c., from which the meridians of other places are calculated. In the maps of this and of British Geographies the first meridian line is fixed at Greenwich. Those who live on the same meridian line have their noon at the same moment, and their midnight at the same moment.

**Longitude** (Lat. *longitudo*, length) is the distance of a place from the first meridian, and is counted 180° east, and as many west. When a place is east of the first meridian it is said to be in East Longitude (marked E. Long.); and when west of it, in West Longitude (marked W. Long.). The north and south poles have no longitude.

On a map, longitude is marked in degrees at the top and bottom; on an artificial globe, it is reckoned on the equator.

The **Ecliptic** (Gr. *ekleptikos*, belonging to an eclipse) is a great circle which represents the apparent path or orbit of the sun among the fixed stars in the course of a year, but is the real path of the earth round the sun.

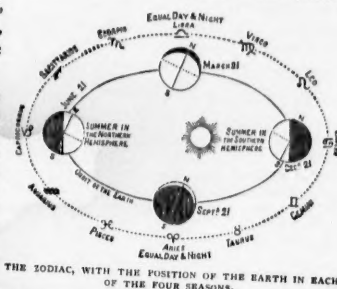
It is called the ecliptic because every eclipse of the sun or of the moon takes place when the moon is on or near its plane. The points where the orbit of the moon crosses the ecliptic are called *nodes*, from the Latin word *nodus*, a tie or knot.

The plane of the ecliptic makes an angle of 23° 28' with the plane of the equator. The points of intersection of the ecliptic and the equator are called the **Equinoctial points**, because, when the sun arrives at either of them, the night (Lat. *nox*) is equal (Lat. *aequa*) in length to the day throughout the world. The times when the sun crosses the equator are called the **Equinoxes**. The *Vernal Equinox* is the 21st March, when the sun crosses the equator going north. The *Autumnal Equinox* is the 21st September, when the sun crosses the equator going south.

The highest or north point, and the lowest or south point, of the ecliptic, are called the **Solstitial points**, because, when the sun (Lat. *Sol*) arrives at either of them, it seems to stand (Lat. *stare*) for a time before it returns to the equator. The times when the sun seems to stand are called **Solstices**. The *Summer Solstice* is the 21st June, when the sun is vertical at the Tropic of Cancer. The *Winter Solstice* is the 21st December, when the sun is vertical at the Tropic of Capricorn.

The **Zodiac** is a space, or belt, 18 degrees broad, or 9 degrees on each side of the ecliptic.

It is called Zodiac from the Greek word *zōdiakos*, from *zōdion*, a little animal; because the stars, in the twelve parts into which the ancients divided it, were formed into constellations, or groups of stars, and most of these were called after some animal. Each of these twelve parts or signs into which the ancients divided the Zodiac measures 30° along the ecliptic. The names of the signs and the days on which the sun enters them are as follows:



THE ZODIAC, WITH THE POSITION OF THE EARTH IN EACH OF THE FOUR SEASONS.

## NORTHERN SIGNS.

### Spring.

- ♈ Aries, the Ram, 21st March.
- ♉ Taurus, the Bull, 19th April.
- ♊ Gemini, the Twins, 20th May.

### Summer.

- ♋ Cancer, the Crab, 21st June.
- ♌ Leo, the Lion, 22nd July.
- ♍ Virgo, the Virgin, 22nd August.

## SOUTHERN SIGNS.

### Autumn.

- ♏ Libra, the Balance, 21st Sept.
- ♐ Scorpio, the Scorpion, 23rd Oct.
- ♑ Sagittarius, the Archer, 22nd Nov.

### Winter.

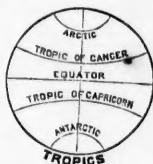
- ♒ Capricornus, the Goat, 21st Dec.
- ♓ Aquarius, the Waterbearer, 20th Jan.
- ♈ Pisces, the Fishes, 19th Feb.

The **Colures** are two meridian circles which divide the ecliptic into four parts, marking the four seasons of the year. The **Equinoctial Colure** is a great circle passing through the poles and the equinoctial points, Aries and Libra. The **Solstitial Colure** is a great circle passing through the poles and the solstitial points, Cancer and Capricorn.

(9.) The Small Circles are the Tropics, the Polar Circles, and the Parallels of Latitude.

(a.) The **Tropics** (Gr. *trōpē*, a turning) are two small circles parallel to the equator, and respectively 23° 28' north and south from it.

They are so named because, when the sun in its apparent annual course has arrived at these lines, it never passes them, but seems to turn (Gr. *trepein*) back to the equator. The tropic north of the equator is called the Tropic of Cancer; and that south of it, the Tropic of Capricorn, because they touch the ecliptic at the beginning of those signs.



(b.) The **Polar Circles** are two small circles parallel to the equator, and respectively 23° 28' from the north and south pole. The former is called the Arctic Circle and the latter the Antarctic Circle.

When the sun is vertical to the Tropic of Cancer his rays extend beyond the north pole to the arctic circle, and the whole of the South Frigid Zone is in darkness. When the sun is vertical to the Tropic of Capricorn his rays extend beyond the south pole to the antarctic circle, and the whole of the North Frigid Zone is in darkness.

**Zones** (Gr. *zonē*, a belt) are belts or divisions of the earth bounded by the polar circles and the tropics.

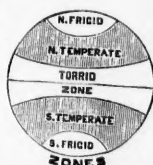
The tropics and polar circles divide the globe into five zones, viz.: the **Torrid Zone**, the **North and South Temperate Zones**, and the **North and South Frigid Zones**.

The **Torrid Zone** (Lat. *torridus*, hot, and Gr. *zonē*, a belt) is the belt between the Tropic of Cancer and the Tropic of Capricorn.

It is 46° 56' in breadth, or 23° 28' on each side of the equator, equal to 3246 English miles. Its area is about 1/4 of that of the globe.

The **North Temperate Zone** is the belt between the Tropic of Cancer and the Arctic Circle.

It is 43° 4' in breadth, equal to 2978 English miles. Its area is about 1/3 of that of the globe.





The *South Temperate Zone* is the belt between the Tropic of Capricorn and the Antarctic Circle. Its breadth and area are the same as those of the North Temperate Zone.

The *North Frigid Zone* (Lat. *frigidus*, cold) or *Arctic Zone* (Gr. *arktos*, a bear) is the space enclosed by the Arctic Circle.

The *South Frigid Zone*, or *Antarctic Zone* (Gr. *anti*, opposite, and *arktos*, a bear) is the space enclosed by the Antarctic Circle.

The radius of each Frigid Zone is  $23^{\circ} 28'$ , equal to about 1623 English miles, and the area of each is about 7,900,000 square miles.

In extent of surface the Torrid Zone is 10 times, and each Temperate Zone is  $6\frac{1}{2}$  times larger in area than either of the Frigid Zones.

(c.) The *Parallels of Latitude* are small circles parallel to the equator.

They are used to point out the latitude of places, and to connect together all places on the globe having the same latitude. Every place is supposed to have a parallel of latitude passing through it, but on maps and globes parallels are usually drawn at intervals of  $10^{\circ}$ . Those parallels of latitude that lie near the equator are called *low* latitudes; those near the poles, *high* latitudes; and those that are intermediate, *middle* latitudes.

(10.) *Isothermal Lines* (Gr. *isos*, equal, *therme*, heat) are imaginary lines passing through those points on the earth's surface at which the mean annual temperature is the same.

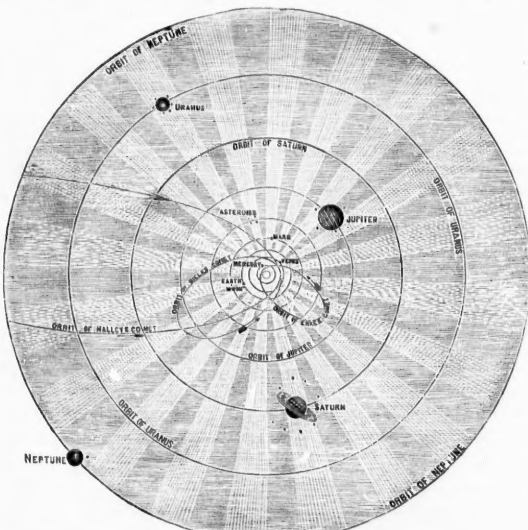
*Isothermal Lines* (Gr. *isos*, equal, and *theros*, summer) are those which connect places whose mean summer temperature is the same.

*Isochimal Lines* (Gr. *isos*, equal, *chima*, winter) are those which connect places whose mean winter temperature is the same.

NOTE.—This system of lines was brought into use by Humboldt in 1817.

(11.) *Antipodes* (from two Greek words, *anti*, opposite, and *pous*, foot, the foot) are any two places on the surface of the earth, at which the feet of those living at one place are diametrically opposite to the feet of those living at the other place. When it is day at one place, it is night at the other; and when it is summer at one place, it is winter at the other. Antipodes Island, near New Zealand, is nearly diametrically opposite to Great Britain—that is to say, they are nearly opposite as the extreme points of a diameter.

9. The *Heavenly Bodies*, which revolve round the sun, are *planets*, *planetoids*, *satellites* (these revolve around the planets), and *comets*. Planets, from the Greek word *planetes*, a wanderer, are so called to distinguish them from *fixed* stars. Planetoids are also called Minor Planets. Satellites are bodies which move round some of the planets; they are also called moons. Comets (from the Greek, *kometes*, long-haired) are so called from the hair-like appearance of the tail which generally accompanies



AN APPROXIMATION TO THE RELATIVE ORBITS OF THE PLANETS ROUND THE SUN.

them. They are not solid bodies like the planets, but gaseous, and have one point of their orbit near the sun and the opposite point very far off. The sun and all these revolving bodies form our solar system. Beyond this solar system are the fixed stars, supposed to be the suns and centres of other systems. The Milky Way is composed of myriads of small stars.

10. Our *Solar System* (from *sol*, the sun, being the largest body in it) consists of: The Sun; nine large planets revolving round it in nearly circular orbits; a large number of minor planets or planetoids (sometimes called asteroids), of which more than 210 are now known; 20 satellites or moons; and a host of comets.

It may be thus represented:

The Sun, by a ball one foot in diameter.

Vulcan, by a fourth of a mustard-seed 15 feet distant.

Mercury, by a mustard-seed 42 feet distant.

Venus, by a pea 76 feet distant.

Earth, by a larger pea 107 feet distant; and a rape-seed for the Moon, four inches from the pea.

Mars, by a large mustard-seed or a small radish-seed 164 feet distant.

Minor Planets, by grains of sand from 235 to 423 feet distant.

Jupiter, by a small billiard-ball 560 feet distant.

Saturn, by a large marble 1022 feet distant.

Uranus, by a cherry 2050 feet distant.

Neptune, by a plum 3320 feet distant.

The Sun is about 860,000 miles in diameter. It turns on its axis, from west to east, at a rate varying from once in about 25 days to once in about 26½ days. It also moves onward in space, in an orbit of its own, at the rate of about 125,000,000 miles per annum. Its weight is 326,800 times greater than that of the earth, and its size 1,257,000 times larger. Its size is 500 times greater than the combined bulk of all the planets that revolve around it.

Vulcan, the planet nearest to the sun, being only about 13,000,000 miles from it, is 785 (?) miles in diameter. It was discovered by Lescarbault, a French physician, in 1859. This planet can hardly be said to be fully discovered, as it has never been seen, so as to be recognized, since Lescarbault saw it crossing the sun's disc in 1859. During the total eclipse of the sun in 1878 Prof. Watson saw what he believed to be two small planets close to the sun, one of which was seen also by Prof. Swift. Possibly one of these objects was Vulcan. It seems probable that there are several small planets revolving round the sun in orbits inside that of Mercury.

Mercury is 2992 miles in diameter. Its distance from the sun is 35,750,000 miles. It is seldom seen except by the aid of a telescope.

Venus, 66,750,000 miles from the sun, is nearer to the earth, and is more brilliant than the other planets (diameter 7660 miles). When east of the sun, Venus is the Evening Star; and when west, the Morning Star.

The Earth is distant from the sun about 92,400,000 miles. It is accompanied by a moon or satellite (Lat. *satelles*, an attendant) which revolves round it in 29 days, 12 hours, 44 minutes; and rotates on its axis in the same time. The moon has four motions, viz.: its rotation on its axis, its revolution round the earth, its revolution round the sun with the earth, and its movement in space with the sun. The diameter of the moon is 2160 miles. Its mean distance from the earth about 240,000 miles. The moon coming between us and the sun, causes an eclipse of the sun; the earth, when between the sun and moon, causes an eclipse of the moon. The combined attraction of the sun and moon is the cause of the ocean tides.

Mars, 4211 miles in diameter, is 141,000,000 miles from the sun. It has a red or fiery appearance. It has two moons.

The Minor Planets, Planetoids, or Asteroids (from Gr. *aster*, a star, and *eidos*, form), of which more than 210 are now known, are comparatively small bodies, the diameter of Vesta and Ceres, the largest of them, being only between 200 and 400 miles. They revolve in orbits between those of Mars and Jupiter, their mean distance being about 284 millions of miles from the sun. About eight new ones are discovered on an average every year, and they probably number many thousands.

Jupiter, 480,000,000 miles from the sun, is the largest of the planets. Its diameter is 86,000 miles. It has four moons, discovered by Galileo in the beginning of the seventeenth century. It is surrounded by a cloudy atmosphere, forming belts.

Saturn, 881,000,000 miles from the sun, has eight moons. It has also three rings, two of which are luminous. Diameter 70,500 miles.

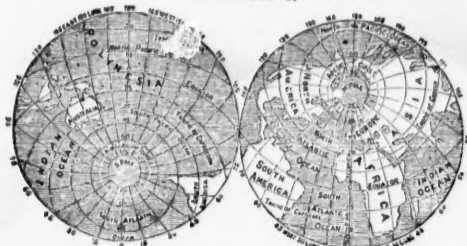
Uranus was discovered by Herschel in 1781, and is 1,771,000,000 miles from the sun. It has four moons, which move from east to west. Uranus was formerly called Herschel; also Georgium Sidus, or Georgian Star, after King George the Third. Diameter 31,700 miles.

Neptune is 2,775,000,000 miles from the sun. Its diameter is 34,500 miles. Its place in the heavens was calculated and predicted by Leverrier and by Adams; and it was discovered, in 1846, by Galle. It has one moon.



## II. PHYSICAL GEOGRAPHY.

### SECTION I.



RELATIVE PROPORTIONS OF LAND AND WATER ON THE GLOBE.

#### 1. The Earth's Surface is divided into Land and Water.

Land occupies a little over one-fourth of the earth's surface, and its natural divisions are classified as follows:

**1. A Continent** (Lat. *con*, together, *tenere*, to hold) is a vast body of connected land. Example: North America.

**2. An Island** (Norse, *eyland*, Ang. Sax. *ealand* from *ea*, water, and *land*) is a portion of land entirely surrounded by water. Ex. Newfoundland.

(a.) The only natural distinction between a continent and an island is extent.

(b.) Islands occur singly, in chains, or in clusters. Ex. St. Helena, Aleutian Islands, West Indies.

(c.) Islands are of two kinds, *Continental* and *Pelagic*.

Continental Islands are those which were once portions of continents. Ex. Britain.

Pelagic Islands (Gr. *pelagos*, the sea) are those which never were portions of continents.

Pelagic or Oceanic Islands are either of volcanic origin (ex. Graham's Island), or coralline formation. Islands of coralline formation are classed as *Atolls*, *Barrier Reefs*, and *Fringing Reefs*.



AN ATOLL.

An *Atoll* (Malayan, *ator*, order, rank) or *Lagoon Island*, is a more or less complete circle of coral reef, rising out of the sea, and surrounding a basin of salt water, called a lagoon. Ex. The Maldivé and Chagos groups, in the Indian Ocean, are Atolls.

**Barrier Reefs** are those which extend in straight lines in front of the shores of a continent or of a large island, or which encircle smaller islands and are separated therefrom by a broad and deep channel of water. Ex. The reefs which enclose Tahiti, and those which nearly surround the shores of New Caledonia, are Barrier or Encircling Reefs.

**Fringing Reefs** are those which fringe islands at a moderate distance from the shore. They are of less width than a barrier reef, and are separated from the land by a shallow sandy channel of water. Ex. The reefs which surround the Sandwich Islands and Mauritius are Fringing Reefs.

**3. An Archipelago** is a cluster of islands. It sometimes comprises several groups. Ex. West Indies.

**4. A Peninsula** (Lat. *pen*, almost, and *insula*, an island) is a portion of land almost surrounded by water. Ex. Florida.

**5. An Isthmus** (Gr. *isthmos*, the neck) is a neck of land uniting two larger portions. Ex. Isthmus of Darien.

**6. A Cape** (Lat. *caput*, the head) is a point of land projecting into the water. Ex. Cape Farewell.

(a.) A Promontory (Lat. *pro*, forth, and *mons*, a mountain) is a high, rocky cape.

(b.) A Cliff is an abrupt, precipitous face of rock bordering a coast.

(c.) A Bluff is a steep projecting bank.

(d.) A Cape is also called a Head, Headland, Point, Mull, Naze or Ness (*i. e.*, nose), Bill, Race.

**7. A Coast** (Lat. *costa*, a rib) or **Shore** (Sax. *scearum*, to cut) is the margin of land bordering on the water.

(a.) The Beach or Strand is the space alternately covered and laid bare by the tides.

(b.) The Seaboard is the belt of land bordering on, and more or less influenced by its nearness to the sea.

**8. A Plain** (Lat. *planus*, level) is a tract of land nearly level.

(a.) Plains are divided into three classes, viz.: continental plains, river plains, and maritime plains. (1.) *Continental plains* are vast areas elevated but slightly above the sea level. Ex. The Great Northern Plain of the U. S. (2.) *River plains* are the enclosed plains of river basins. Ex. The Mississippi Valley. (3.) *Maritime plains* are those lying between the sea and a chain of mountains. Ex. The Atlantic Plain between the Atlantic and the Alleghenies.

(b.) According to their origin, plains are called, (1.) Plains of deposit; (2.) Plains of denudation; and (3.) Volcanic plains.

**9. A Plateau** (Fr. *plat*, flat), or **Table Land**, is an extensive and elevated plain. Ex. The Plateau of Mexico is 6000 feet above the level of the sea. When the elevated surface is rugged it is termed a Highland.

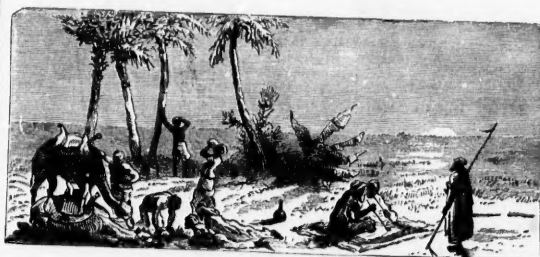
Plateaus are divided into two classes: (a.) Those which lie at an elevation of more than from 4000 to 5000 feet above the sea level; and (b.) those which lie at a level of from 4000 or 5000 feet to 500 feet above the level of the sea.

**10. A Prairie** (Fr. *prairie*, a meadow) is a very large plain, destitute of trees, and covered with tall coarse grass.

In North America, Prairies are called *Savannahs*; in South America, *Pampas* or *Llanos*; in Asia and South-Eastern Europe, *Steppes*; and in Africa, *Karoo*s. The frozen swamps of Siberia are called *Tundras*; and the sandy heath-plains of France, *Landes*.

**11. A Silva** or **Selva** (Lat. *silva*, a wood) is a forest plain. Ex. The Selvas of the Amazon.

**12. A Desert** (Lat. *desertum*) is a barren plain or plateau. Ex. Sahara.



AN OASIS.

**13. An Oasis** (Egy. *huasis*, a resting place) is a fertile spot in a desert.

**14. A Delta** is an alluvial tract formed at the mouths of a river. It is a plain of deposit.

(a.) A Delta is so called from the resemblance which the triangular space enclosed by the two main channels of the river bears to the Greek letter Δ (delta).

(b.) Deltas are called *fluvial* (Lat. *fluvius*, a river) when formed at the entrance of one river into another; *lacustrine* (Lat. *lacus*, a lake) when formed at the entrance of a river into a lake; *maritime* (Lat. *mare*, the sea) when formed at the entrance of a river into the sea.

**15. A Mountain** (Lat. *mons*) is an elevation of land exceeding 2000 feet. Ex. Mount Everest, in the Himalayan Range, between Hindostan and Tibet, the highest mountain in the world, is 29,002 feet high.

(a.) The height of a mountain is reckoned from the level of the sea.

(b.) Elevations under 2000 feet are generally called *Hills*. Elevations of inconsiderable height are called *Hillocks*.

(c.) The highest part of a mountain is called the *summit*, the *top*, or the *culminating point*; the lowest part, the *base* or *foot*; and the space between, the *side*, *flank*, or *slope*.

(d.) Mountains occur singly, in ranges or chains, in groups, and in systems.

(e.) A mountain range or chain consists of a series of mountains having their bases in contact, and forming a continuous line over a large tract of country. Ex. Alleghany Range.

(f.) A mountain group consists of several short, irregular ranges, more or less connected. Ex. The White Mountains.

(g.) A mountain system consists of several ranges more or less parallel, and due to the same series of elevatory forces. Ex. Andes.

(h.) The great central range of a mountain system is called the *axis*. The inferior ranges which diverge from the central line are called *branches*. The short, abrupt ridges which diverge from the branches are called *spurs*.

**16. A Valley (Lat. *vallis*)** is a tract of land lying between mountain ranges, mountains, or hills.

(a.) According to their direction, valleys are divided into two classes, viz.: *longitudinal valleys*, or those which lie between parallel ranges, and follow the general direction of the main chain; and *transverse valleys*, or those which cross the principal chains at various angles.

(b.) According to their relative arrangement, valleys are divided into three classes, viz.: *principal valleys*, or those which separate extensive parallel mountain ranges; *lateral valleys*, or those which separate the lateral branches of a mountain range; and *subordinate valleys*, or those which separate mountain spurs.

(c.) According to their situation, valleys are divided into two classes, viz.: *high valleys* and *low valleys*. The former are long, narrow, deep clefts, and are called *passes* when situated between the peaks of mountain ranges, and *gorges* when so deep as to cut the range to the base. The latter are those that become *plains*, by their bounding heights lowering as they enlarge. A transverse valley or gorge cut by a river through a range of mountains is sometimes called a *gate* or *gates*. Ex. The Iron Gate on the Danube; the Gates of the Rocky Mountains.

(d.) In Scotland, a valley is called *strath* and *glen*; in England, *dale*, *dingle*, &c.

(e.) A *Cañon* is a deep, narrow gorge with precipitous sides, cut by a river below the general level of the surrounding country.

**17. A Volcano (Lat. *Vulcanus*, the god of fire)** is an opening in the earth's surface giving exit to vapors, steam, smoke, ashes, and lava. Ex. Mount Vesuvius.

(a.) A volcano consists of two parts: the base and the cone.

(b.) The *Crater* (Gr. *krater*, a cup) is the deep depression found on the summit of the cone, and is so called from its hollow, bowl-like shape.

(c.) A *Fumerole* (Ital. *fumare*, to smoke) is an opening in the ground from which smoke, steam, and gases are emitted. When sulphur is deposited around a fumerole, it is called a *solfatara*, and, in the West Indies, a *soufrière*.

(d.) *Hornitos*, or *Hornos* (Span. ovens), are hillocks from 5 to 10 feet in height, from whose sides and summits columns of smoke and other vapors are emitted.

(e.) *Mud Volcanoes*, or *Saltes*, are low conical hills that send forth mud and water accompanied by vapors and gases.

(f.) There are two classes of volcanoes, viz.: (1.) *Extinct volcanoes*, or those which were once active volcanoes, but have ceased to be so; (2.) *Active volcanoes*, or those which discharge from their craters melted matter without intermission, or after intervals of longer or shorter duration. Ex. Chimborazo is an extinct volcano; Vesuvius is an intermittently active volcano; Stromboli is a permanently active volcano.

(g.) Volcanoes are arranged in two systems, (1.) the *Central*, which comprises a cluster of volcanoes grouped together in a limited area; (2.) the *Linear*, which comprises a series of volcanoes placed in a line.

**18. A Basin** of any body of water is all that surface of country whose drainage it receives.

A Basin is also called a *drainage area* or *hydrographical region*.

**19. A Water-parting** is an elevation of land which separates contiguous basins.

**20. A Watershed** is the slope of land between a water-parting and a water course.

2. Water covers nearly three-fourths of the earth's surface, and its natural divisions are classified as follows:

**1. The Ocean, or the Sea**, is the entire body of salt water which surrounds the globe.

It comprises five great divisions, each of which is called an *ocean*, viz.: the Atlantic, the Pacific, the Indian, the Arctic, and the Antarctic.

**2. An Ocean (Gr. *okeanos*)** is one of the largest divisions of salt water. Ex. The Atlantic.

**3. A Sea (Sax. *sæ*, or *sege*, a basin)** is a body of salt water next in size to an ocean. Ex. The Mediterranean Sea.

(a.) An *Open Sea* is one which communicates with the ocean by a wide opening. Ex. Arabian Sea.

(b.) An *Inland Sea* is one which communicates with the ocean by a strait. Ex. Mediterranean Sea.

(c.) A *Land-locked Sea* is one which is cut off from the ocean by a peninsula and a chain of islands. Ex. Japan Sea.

(d.) An *Archipelago* is part of an ocean, or of a sea, interspersed with many islands.

**4. A Gulf (Gr. *kolpos*, a cavity)** is a large body of water stretching into the land from an ocean, a sea, or another gulf. Ex. Gulf of St. Lawrence.

**5. A Bay (Sax. *byge*, a bend)** is a gulf with a wide mouth. Ex. Fundy Bay.

(a.) A *Cove* is a small gulf.

(b.) A *Creek* (Du. *Kreek*, a little bay; Sax. *crecen*, a crack) is a small arm of the sea.



PICTORIAL ILLUSTRATIONS OF VARIOUS GEOGRAPHICAL TERMS.

(c.) A bay is sometimes called a *bight*.

(d.) The narrow bays on the coast of Ireland are called *loughs*; on the coast of Scotland, *lochs*; and on the coast of Norway, *fjords*.

(e.) A *Harbor* is a bay where ships may be sheltered (or harbored) from the wind and waves. A *Haven* (Sax. *hafan*, a still place) is a small harbor.

(f.) A *Road*, or *Roadstead*, is anchorage ground near a harbor.

**6. An Estuary (Lat. *æstus*, to boil, or foam)** or a *Frith (Lat. *frætum*, the sea)* is (a.) an open channel (ex. Pentland Frith) or (b.) an arm of the sea connected with the mouth of a river. Ex. Frith of Clyde. In the latter case the word is derived from the Scandinavian *fjord*.

**7. A Channel (Lat. *canalis*, a water pipe)** is a passage of water leading from one portion of the sea to another (ex. St. George's Channel) or from the sea to the mouth of a river. Ex. Bristol Channel.

**8. A Strait (Lat. *strictus*, drawn together)** is a narrow passage of water connecting two larger bodies of water. Ex. Strait of Belle Isle.

(a.) A *Sound* (Sax. *sund*, a swimming) is either a shallow strait, or a narrow bay.

**9. An Ocean Current** is a stream of salt water flowing through the sea. Ex. Japan Current.

**10. A Lake (Lat. *lacus*)** is a body of water nearly or quite surrounded by land. Ex. Lake Ontario.



(1.) Lakes may be divided into four classes, viz.: (a.) Those which have neither *inlet* nor *outlet*. Ex. Lake Albano, near Rome.

(b.) Those which have an *outlet*, but no *inlet*, or lakes of *emission*. Ex. Lake Itasca.

(c.) Those which have *inlets*, but no *outlet*, or lakes of *reception*. Ex. Great Salt Lake.

(d.) Those which have both an *inlet* and an *outlet*, or lakes of *transmission*. Ex. Lake Ontario.

(e.) An *inlet*, or *influent*, is a stream which flows into a lake; and an *outlet*, or *effluent*, one which flows from a lake.

(2.) Lakes may also be divided into *Fresh-water Lakes* and *Salt-water Lakes*.

(a.) Fresh-water lakes include *nearly* all lakes that have outlets. (b.) Salt-water lakes include those which have no outlets.

(3.) Some salt lakes, when large, are called *seas*. Ex. Caspian Sea.

(4.) In England, a lake is sometimes called a *mere*; in Scotland, a *loch*; and in Ireland, a *lough*. A *tarn* is a small mountain lake. A *pond* is a small lake.

**II. A Lagoon** (Ital. *laguna*, Lat. *lacuna*, a hollow) is an expanse of water situated upon the border of a river or of a sea, and formed by the waters overflowing into it, or filtering into it through the soil. Ex. Ybera Lagoon.

**12. A Spring** is water coming to the surface of the earth through some natural channel.

**13. A Creek, or Rivulet**, is a small *stream, rill, or brook*, issuing from a spring.

**14. A River** is a large stream of fresh water running in a channel through the land.

(a.) An *Oceanic River* is one which empties directly into the ocean, or into waters communicating with it. Ex. The St. Lawrence.

(b.) A *Continental River* is one which never reaches the ocean, but empties into a lake unconnected with it, or is absorbed in a desert, or lost in a swamp. Ex. The Volga.

(c.) A *Tidal River* is one which empties into a tidal sea, and has the level of the lower part of its course changed daily by the tidal wave. Ex. The Hudson.

(d.) A *Navigable River* is one that can carry ships or boats, and a *Floatable River* one that can only carry rafts of timber.

(1.) The *Source* of a river is the place from which it flows. The *Mouth* of a river is the outlet or outlets in which it terminates. (The French word *embouchure* is often applied to the mouth of a river.) The *Course* of a river is its direction between the source and the mouth.

(2.) The *Banks* of a river are the lands bordering on each side. The *right* bank is the one on the *right-hand* side when going down the stream, and the *left* bank is that on the opposite side.

(3.) The *Bed* of a river is the earth beneath it, and the *Channel*, the whole space between the banks from top to bottom.

(4.) The *Current* of a river is the motion of the water in flowing.

(5.) A *Tributary*, an *Affluent*, a *Branch*, or a *Fork* of a river is a stream which falls into it.

(6.) A *Confluence* is where two rivers meet.

(7.) *Rapids* of a river are those parts of it where the descent of the bed is sudden, and the velocity of the water great. In British North America, a rapid is often called a *Sault*. Ex. Sault Ste. Marie.

(8.) The *Falls* of a river are those parts of it where the water passes over a precipice or sudden break in the descent of the bed. Ex. Niagara Falls. The falls of a large river are called a *Cataract*, and of a small stream, a *Cascade*.

(9.) The *Fords* of a river are those places in it which may be crossed by man or beast, on foot.

(10.) The *Basin* of a river is the tract of land drained by a river and its tributaries.

(a.) The Basin of a river is also called its *drainage area*, or *hydrographical region*.

(b.) The *River Basins* that descend to an Ocean form an *Ocean Basin*. Ex. The Atlantic Basin. The River Basins that descend to a Sea form a *Sea Basin*. Ex. The Basin of the Baltic.

**15. A Canal** is an artificial river designed for the passage of ships and barges, or canal boats. Ex. Welland, Lachine, and Erie Canals.

## SECTION II.

**I. The Six Great Land Divisions** of the earth are, North America, South America, Europe, Asia, Africa, and Oceania.

**2. The Oceans** are the Atlantic, so called from Mount Atlas, in North Africa; Pacific, being placid when first navigated by Magellan, in 1520; Indian; Arctic, from the Greek word *arktos*, a bear, being under the constellation of stars called the Great Bear; and Antarctic, from being *anti* or opposite to the Arctic.

These oceans are all connected, and form one vast expanse of water encircling the globe. The bottom or bed of the ocean presents an appearance of mountains and plains, as on land. The greatest depth yet sounded is 27,930 feet, or upwards of five miles. The characteristics of the water of the ocean are its prevailing color of deep bluish-green; its saltness, density, temperature, level, and depth; and its movements, such as waves, tides, and currents.

(1.) The *Atlantic Ocean* is bounded on the north by the Arctic Circle; on the south by the Antarctic Circle; on the east by the western shores of Europe and Africa, and by the twentieth meridian, east; and on the west by the eastern shores of North and South America, and the seventy-fifth meridian, west. Its extreme length, from north to south, is about 9000 miles, and its breadth from 3000 to 4000 miles; area, 30 millions of square miles.

(2.) The *Pacific Ocean* is bounded on the north by the Arctic Circle; on the south by the Antarctic Circle; on the east by the western shores of North and South America, and by the seventy-fifth meridian, west; and on the west by Asia, Australia, and the one hundred and fifty-fifth meridian, east. It extends about 9000 miles from north to south, and about 12,000 from east to west; area 70 millions of square miles.

(3.) The *Indian Ocean* is bounded on the north by Asia; on the south by the Antarctic Circle; on the east by Australia and the Pacific Ocean; and on the west by Africa and the Atlantic Ocean. It extends about 6000 miles from north to south, and about 6000 from east to west; area 25 millions of square miles.

(4.) The *Arctic Ocean* lies within the Arctic Circle; and the *Antarctic Ocean* within the Antarctic Circle; area of both oceans, 20 millions of square miles.

(5.) *Waves* are caused by wind, and by tidal motion. The highest wave rarely exceeds forty feet from the trough of the sea to the wave's crest.

(6.) The *Tides* are the alternate rise and fall, or flow and ebb, at regular intervals, of the waters in the ocean, perceptible on the shore. *Spring* or high tides are caused by the joint attraction of the sun and moon; and *neap* or low tides, by the attraction of the sun and moon acting perpendicularly to each other.

(7.) *Ocean Currents* are chiefly caused by wind, attraction of the sun and moon, such as tides, unequal evaporation at different points, differences of temperature and density, caused by coldness and saltness, &c. These influences act singly or together. The chief currents are the north and south *polar currents*, and the *equatorial current*.

(8.) The *Polar Currents* are the movement of the colder and heavier waters of the polar regions toward the warmer and lighter waters of the equator. Thus icebergs find their way, in the spring of the year, toward the tropical waters, where they melt away.

(9.) The *Equatorial Current* is a general movement of the tropical waters from east to west, to make room for the cold currents of the polar regions. The most remarkable movement of this current is known as—

(10.) The *Gulf Stream*, so called from having its chief focus in the Gulf of Mexico. This stream enters the Gulf from the Caribbean Sea, makes a circuit partly round it, and emerges into the Atlantic through the narrow passage between Florida and Cuba. Passing along the United States coast as far as Cape Cod, it diverges and touches the southern point of Nova Scotia; then that of Newfoundland, where, on the Grand Bank, it meets with the Arctic Current from Baffin Bay. The unequal temperatures of the two great currents of water which meet here cause the prevailing fogs on the coast. Passing the Banks of Newfoundland, its course is eastward till it meets the British Isles. By these it is divided; one part going into the polar basin of Spitzbergen, the other entering the Bay of Biscay.

**3. The Chief Natural Phenomena** are winds, clouds, lightning, thunder, rain, rainbows, snow, hail, icebergs, glaciers, avalanches, fogs, dew, water-spouts, meteors, auroras, mirage, volcanoes, and earthquakes.

(1.) *Winds* are either periodical, constant, or variable; and are chiefly caused by a difference in the temperature of the atmosphere with which the earth is surrounded to a height of not less than 50 miles. Near the earth's surface it becomes heated, and, thus becoming lighter, ascends. The rush of cold air to supply its place, produces wind. The velocity of this movement is characterized by its being (1.) gentle,

(2.) brisk, (3.) high, (4.) a squall, (5.) a violent storm, (6.) a hurricane or revolving storm, and (7.) a tornado, cyclone, typhoon, or violent hurricane. The Local Winds are (1.) the Sirocco and Solano of the South of Europe, which blow from Africa; (2.) the Harmattan, which blows from the desert of Sahara to the Atlantic; and Arabia; (4.) the periodical Monsoon of the Indian Ocean; (5.) the constant Trade-Winds of the Atlantic, Pacific, and Indian Oceans, which generally blow from the north-east and south-east toward the equator; (6.) the Land and Sea Breezes which occur on almost every coast, and blow alternately night and day; and (7.) the Levanter, an easterly land-breeze of the Mediterranean.

(2.) *Clouds* are partially condensed water-vapor floating in the higher regions of the atmosphere.

(3.) *Lightning* is a brilliant flash of light accompanying the discharge of atmospheric electricity from one cloud to another, or to or from the earth.



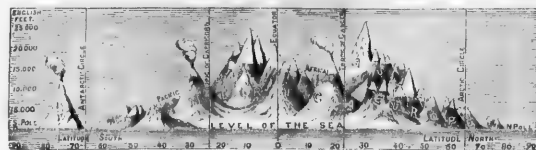
SPRING AND NEAP TIDES.



(4.) **Thunder** is a loud sound produced by electricity in passing rapidly through the atmosphere.

(5.) **Rain** is vapor condensed into water, and falling in liquid drops.

(6.) **A Rainbow** is a beautiful arch, visible during a shower, on a cloud opposite to the sun; and is caused by the refraction of the sun's rays, by the drops of rain, and their reflection by the surface of the cloud.



(7.) **Snow** is the vapor of water congealed; it is often crystallized into beautiful forms while falling. Snow falls upon Europe, the northern parts of Asia, Africa, and North America, and on the southern parts of Australia, Africa, and South America. Within the tropics, it falls only on the high mountains, at an elevation of from 15,000 to 20,000 feet above the sea.

(8.) **Hail** is rain falling from a higher and warmer stratum of atmosphere through a colder one, and frozen into drops in its descent.

(9.) **Icebergs** are floating masses of ice of great height and size, like hills (Ger. *berg*, signifying hill), generally detached from the Polar glaciers or rivers.

(10.) **Glaciers** are immense masses of ice formed by solidified snow which becomes compacted in the gorges or valleys of snow-capped mountains.

(11.) **An Avalanche** is a sudden descent of a mass of snow or ice down the side of a snow-clad mountain.

(12.) **Fogs** are clouds of dense vapor resting on the land or on water.

(13.) **Dew** is the moisture of the air condensed by contact with bodies cooler than the air.

(14.) **A Water-spout** is a violently twisted column of water, caused by a whirlwind, and united with a cloud surcharged with water.

(15.) **A Meteor** is any luminous appearance in the air, such as a shooting-star, a bolide, thunderbolt, etc.; also as an *ignis fatuus*, or will-o'-the-wisp.

(16.) **The Aurora Borealis**, or Northern Lights, are beautiful rays of light shooting up on a clear night from the northern horizon. They are supposed to be electrical or magnetic in their origin. The **Aurora Australis**, or Southern Lights, occur in the southern hemisphere.

(17.) **A Mirage** is the name for a peculiar condition of the atmosphere just above the horizon, when it assumes the appearance of a sheet of water, often exhibiting the reflected or inverted images of distant objects.

(18.) **A Volcano** is a mountain giving vent to fire, smoke, ashes, or lava. The mouth, from which the fire, smoke, etc., issue, is called the *crater*.

(19.) **An Earthquake** is a shaking, trembling, or concussion of the earth, caused possibly by volcanic or other internal action, possibly by the shrinking of the earth's crust through loss of heat, possibly by the attraction of the moon.

**4. Climate** signifies the general state of the atmosphere as regards temperature, wind, and moisture. These are chiefly varied by an unequal distribution of the sun's rays upon the earth's surface.

The heat is greatest at the equator, where the sun is almost directly overhead. As we approach the North and South Poles, it gradually becomes cooler, caused by the sun's rays falling more or less obliquely upon the earth as we recede from the equator. Climate is also affected by the height of a place above and its distance from the sea; the direction of mountain ranges; the existence of large forests; prevalent winds; and the quantity of rain which falls. Climate, from the Greek word *klima*, a slope, was originally one of the thirty zones into which the ancients divided the globe according to the obliquity of the sun's course.

**5. Geological Structure.**—It is generally supposed that the interior of the earth is in a state of intense heat, and was originally a fused mass, which became solid by cooling, and was finally, by the action of water and chemical forces, covered by successive layers of sediment.

#### THE GEOGRAPHICAL DISTRIBUTION OF MINERALS.

**6. Minerals.**—The substances of which the earth's crust is formed are nearly all compound bodies called minerals.

When analyzed, these compound bodies have been reduced to sixty-nine elementary substances, which by chemists have been divided into two groups, called the metallic and the

non-metallic. There are upwards of five hundred species of these compound bodies, arranged into 37 families and 7 orders.

**7. Metals** are sometimes found pure; but they are generally united with other substances, forming what are called *ores*. The metals are fifty-four in number, the best known being gold, silver, etc. The non-metallic substances are fifteen, viz.: oxygen, nitrogen, etc. Of the sixty-nine elementary substances, hydrogen is the lightest, and platinum the heaviest.

(1.) **Gold** is the most valuable of the precious metals. It is found in grains or dust in a pure state; sometimes in lumps or nuggets. The gold regions of Australia, California, and British Columbia are the most productive.

(2.) **Platinum**, a grayish metal, more rare and almost as valuable as gold, is found in the Ural Mountains, Brazil, Borneo, and California.

(3.) **Silver** is sometimes found pure; but it is generally mixed with gold, copper, lead, arsenic, or sulphur. Mexico, California, Nevada, the north shore of Lake Superior in Ontario, Peru, Bolivia, and Chili are noted for their silver mines. The principal European mines are in Norway, Spain, Transylvania, and Hungary.

(4.) **Iron** is the most useful of all the metals. It is found in greatest abundance in Great Britain, Belgium, France, Germany, Norway, Sweden, Russia, the United States, and British North America.

(5.) **Copper**, next to iron, is the most useful metal. The richest copper mines in America are on the shores of Lakes Superior and Huron; in the Island of Cuba; and in Chili. The most noted of Europe are in England, Sweden, and Norway. Siberia, Persia, Japan, Australia, and Malaysia also furnish copper.

(6.) **Zinc**, which is combined with copper to form brass, is found in abundance in Prussia, Belgium, England, and the United States.

(7.) **Lead** is found in Great Britain, Ireland, Germany, France, Spain, Norway, the United States, and Canada.

(8.) **Tin** is found chiefly in England, Spain, and Saxony; also in Banca, one of the islands of Malaysia. Combined with copper it forms bronze.

(9.) **Mercury.**—The principal quicksilver mines are those of California, Peru, Idria, in Southern Austria, and Almaden, in Spain.

(10.) **Cobalt** is chiefly used for imparting a blue color to glass and porcelain. It is obtained chiefly from Germany and Norway.

(11.) **Arsenic** is procured chiefly from Germany.

(12.) **Antimony** and **Bismuth** are brittle substances, found chiefly in Germany. Combined with lead they form a metal used for printing types.

**8. Inflammable Minerals.**—The chief inflammable minerals are coal, jet, sulphur, bitumen, and amber.

(1.) **Coal** is divided into three distinct species, viz.: anthracite, bituminous, and lignite. It is found in Nova Scotia, New Brunswick, Newfoundland, the Saskatchewan River Valley, near the Rocky Mountains, Vancouver Island, the United States, England, and other countries.

(2.) **Jet** is a substance like coal, found in Yorkshire, England, and some other regions. It is much used for mourning ornaments, such as necklaces, etc.

(3.) **Sulphur**, sometimes called brimstone or burn-stone, from its great combustibility, is found chiefly in Sicily.

(4.) **Bitumen** is sometimes found in a fluid state, when it is called petroleum; in its solid state it is called asphaltum. In the Island of Trinidad (West Indies) there is a lake or pond of semi-fluid bitumen.

(5.) **Amber**, a resinous substance often made into ornaments, is obtained chiefly on the shores of the Baltic in Prussia.

#### THE GEOGRAPHICAL DISTRIBUTION OF PLANTS.\*

**9. The Geographical Distribution of Plants**, of which there are about 120,000 species,† is dependent chiefly on climate, and on the moisture or dryness of the atmosphere.

Vegetation of some kind exists in almost every part of the globe; either on the soil, as trees, shrubs, and herbs; on the rocks, as lichens, etc.; in the water, as sea-weed, etc.; or on the snow, as the red or orange-colored plant mistaken by Arctic travellers for red snow.

**10. Principal Food Plants.**—Grain, fruits, and tuberous roots are the principal food-plants; and the most important plants for clothing are cotton, flax, and hemp.

#### THE GEOGRAPHICAL DISTRIBUTION OF ANIMALS.‡

**11. The Geographical Distribution of Animals**, like plants, is dependent chiefly on climate.

The animals which inhabit the earth are naturally divided into three groups,—those found in the torrid (or tropical), the temperate, and the frigid zones. The fiercest animals are found in the torrid, the most useful in the temperate, and the most prolific in the Arctic zones. The cat-tribe (tiger, panther, etc.) degenerates as it recedes from the tropics, while such animals as the bear and the whale increase in size.

\* The group of plants that inhabits any particular region, embracing all the species, both terrestrial and aquatic, is called its *flora*.

† A *species* comprises all the individuals that are supposed to come from a single pair; and a *genus* includes several species having certain properties in common.

‡ The group of animals that inhabits any particular region, embracing all the species, both aquatic and terrestrial, is called its *fauna*.

**12. Classification.**—Animals have been arranged into four grand divisions, viz.: I. The *Vertebrated*, or those with a backbone, of which there are five classes; viz.: (1.) Mammalia, or those giving milk, (2.) Birds, (3.) Reptiles, (4.) Amphibia, and (5.) Fishes. II. The *Mollusca* or soft-bodied, of which there are either classes, chiefly in hard shells. III. The *Articulated* or jointed, of which there are four classes; viz.: (1.) Annelides, or ringed, such as worms, leeches, etc.; (2.) Crustacea, or soft-shelled, such as crabs, lobsters, etc.; (3.) Spiders; and (4.) Insects. IV. The *Radiated*, or those whose structure radiates from a centre, of which there are five classes. This division is the lowest, and connects the animal and vegetable worlds. The known species in these divisions are as follows: I. Vertebrata, 23,000; II. Mollusca, 20,000; III. Articulata, 200,000; IV. Radiata, 7000: Total 250,000.

**13. The Wild Animals, etc.**, most useful to man are the following:

| MAMMIFERS (MILK-BEARING).                                  |                     | REPTILES.                                               |                         |
|------------------------------------------------------------|---------------------|---------------------------------------------------------|-------------------------|
| Names.                                                     | Products.           | Names.                                                  | Products.               |
| The Greenland Whale,                                       | Oil and whalebone.  | The Turtle, Iguana, and Frog,                           | Food.                   |
| The Sperm Whale,                                           | Oil and spermaceti. | The Alligator,                                          | Leather.                |
| The Walrus,                                                | Oil,                | FISH.                                                   |                         |
| The Seal,                                                  | Oil and skin.       | The Sturgeon,                                           | Food and isinglass.     |
| The Porpoise,                                              | Oil and leather.    | The Cod,                                                | Food and cod-liver oil. |
| The Elephant,                                              | Ivory and food.     | The Salmon, Herring, Shad, Mack-<br>erel, Turbot, etc., | Food.                   |
| The Beaver, Marten, Mink, Muskrat,                         |                     | INSECTS.                                                |                         |
| Otter, Seal, Sable Ermine, Fox,                            | Fur.                | The Silk Worm,                                          | Silk.                   |
| Grey Squirrel, Chinchilla,                                 |                     | The Cochineal Insect,                                   | Cochineal.              |
| The Pecary, Kangaroo, Reindeer,                            | Food                | The Lac Insect,                                         | Lac.                    |
| Elk, or Moose, Antelope, Cha-<br>mois, Bison, and Buffalo, | Leather.            | The Gall Insect,                                        | Gall.                   |
|                                                            |                     | The Bee,                                                | Honey and Wax.          |
|                                                            |                     | Spanish Fly,                                            | Medicinal.              |
| BIRDS.                                                     |                     | MOLLUSKS, ETC.                                          |                         |
| The Ostrich and Elder-Duck,                                | Feathers.           | The Pearl Oyster,                                       | Pearl.                  |
| The Swan, Goose, Duck, Ptarmigan,                          | Food.               | The Red Coral Builder,                                  | Red coral.              |
| Snipe, Partridge, and Quail,                               |                     | The Common Oyster, Trepan, Lob-<br>ster, and Crab,      | Food.                   |

### THE GEOGRAPHICAL DISTRIBUTION OF MAN.

"God . . . hath made of one blood all nations of men to dwell on all the face of the earth."—Acts xvii. 24, 25.



SPECIMENS OF THE FIVE CLASSES OF MANKIND.

**14. Mankind.**—The human race is found in nearly every region of the globe. Man is enabled to adapt himself to almost every variety of soil and climate, which have in turn reacted upon his physical constitution, so as to produce the different varieties which now exist, and may be conveniently arranged into five great characteristic divisions.

1. The **Xanthochroic**, or Fair Whites (Gr. *Xanthos*, yellow or fair; *chrois*, skin or complexion). These generally have hair of either a flaxen, auburn, or sandy red color, and inhabit Britain and the northern portions of Europe.

2. The **Melanochoic**, or Dark Whites (Gr. *Melas*, dark). These have a swarthy complexion, sometimes approaching to an olive color, their eyes and hair dark-brown or black, and inhabit Southern Europe, Spain, Italy, and the north and south shores of the Mediterranean.

3. 4. and 5. **Mongoloid.**—A race with yellowish-brown skin, black eyes, black, straight hair, which inhabits the whole of Northern and Central Asia. The Chinese and Japanese may be taken as types, also the North and South American Indians and the inhabitants of Malaysia, Polynesia, and Madagascar.

6. **Australoid.**—A race with a chocolate brown skin, dark-brown black eyes, black, wavy hair, thick lips, broad nose, and strongly developed brow-ridges, which inhabits Southern India and Australia. The ancient Egyptians may probably be considered as belonging to this race as well as their modern representatives the Fellahs.

7. **Negroid.**—A race with a very dark brown or black skin, black eyes, black, crisp or woolly hair, heavy projecting lips, and broad, flat nose, which inhabits Africa, south of the Desert of Sahara, portions of the West India Islands, and the Southern States of America, whither, through the cruelties of the Slave Trade, they were transported.

The total population of the World is estimated at about 1,440,000,000, distributed as follows:—

| America (North and South)    | Area in Square Miles | Population.   |
|------------------------------|----------------------|---------------|
| Europe                       | 15,879,400           | 86,500,000    |
| Asia (including Malaysia)    | 3,790,000            | 313,000,000   |
| Africa                       | 16,668,900           | 831,000,000   |
| Oceania (excluding Malaysia) | 11,630,400           | 205,000,000   |
|                              | 3,424,200            | 4,500,000     |
|                              | 51,392,900           | 1,440,000,000 |

### III. POLITICAL GEOGRAPHY.

**I. The Political Divisions** of the Earth are Empires, Kingdoms, Republics, Dominions, Confederacies, Principalities, Duchies, Colonies, and Dependencies.

(1.) A **Country** is a portion of land inhabited by a particular people. Ex. England.

(2.) An **Empire** consists of several countries united under the rule of one sovereign or monarch, who is generally styled an Emperor. An Emperor is called in different countries a Sultan, Czar, Shah, Mogul, or Mikado.

(3.) A **Kingdom** or **Monarchy** consists of one or more countries governed by a King or Queen.

(4.) An **Absolute Monarchy** is a government in which the Monarch possesses unlimited power. Ex. Russia.

(5.) A **Constitutional Monarchy** is a government in which the power of the monarch is limited by law. Ex. England.

(6.) A **Republic** is a country governed by a ruler, usually called a President, who is generally chosen for a stated period by the people, or by delegates elected by them. Ex. The United States.

(7.) **Principalities, Grand Duchies, Duchies, Electorates, etc.**, are small States governed by Princes, Grand Dukes, Dukes, Electors, etc., either hereditary or elective.

(8.) A **Colony** is a country which a body of people from another country have settled. Ex. Australia and the Cape of Good Hope.

(9.) A **Dependency** is a country belonging to and governed by another. Ex. British India and the Fiji Islands.

(10.) Countries are divided into Provinces, Districts, Departments, States, Territories, Counties, etc.

(11.) In Canada, a **County** is a sub-division of a Province, having its own local officers. The County Town is the place where the county officers transact the public business.

(12.) A **Township** is a sub-division of a county, and has its local officers.

(13.) The **Capital** of a country is the seat of its government. Ex. Ottawa is the capital of the Dominion of Canada.

**2. The Different Nations** of the earth are usually divided into the savage, the partly civilized, and the civilized.

In the savage state, men subsist chiefly by hunting, fishing, and on such productions of the earth as grow without much culture. The civilized nations are distinguished for their advancement in science, literature, and the arts.

**3. The Principal Religions of the World** are the Christian, Jewish, Mohammedan, Brahmin or Hindu, Buddhist, Parsee, and Sikh. There are uncivilized races who have no well-defined religious belief, yet believe in a superior Being, whom they think has an influence over them for evil or good; and a few others, of whom it is said that they have no belief in God or in a future state of existence.

The number of adherents of the various religions is estimated as follows:

|            |             |             |               |
|------------|-------------|-------------|---------------|
| Christian  | 375,000,000 | Parsee      | 200,000       |
| Jewish     | 8,000,000   | Sikh        | 1,200,000     |
| Mohammedan | 160,000,000 | Uncivilized | 195,600,000   |
| Brahmin    | 200,000,000 |             |               |
| Buddhist   | 500,000,000 |             |               |
|            |             |             | 1,440,000,000 |

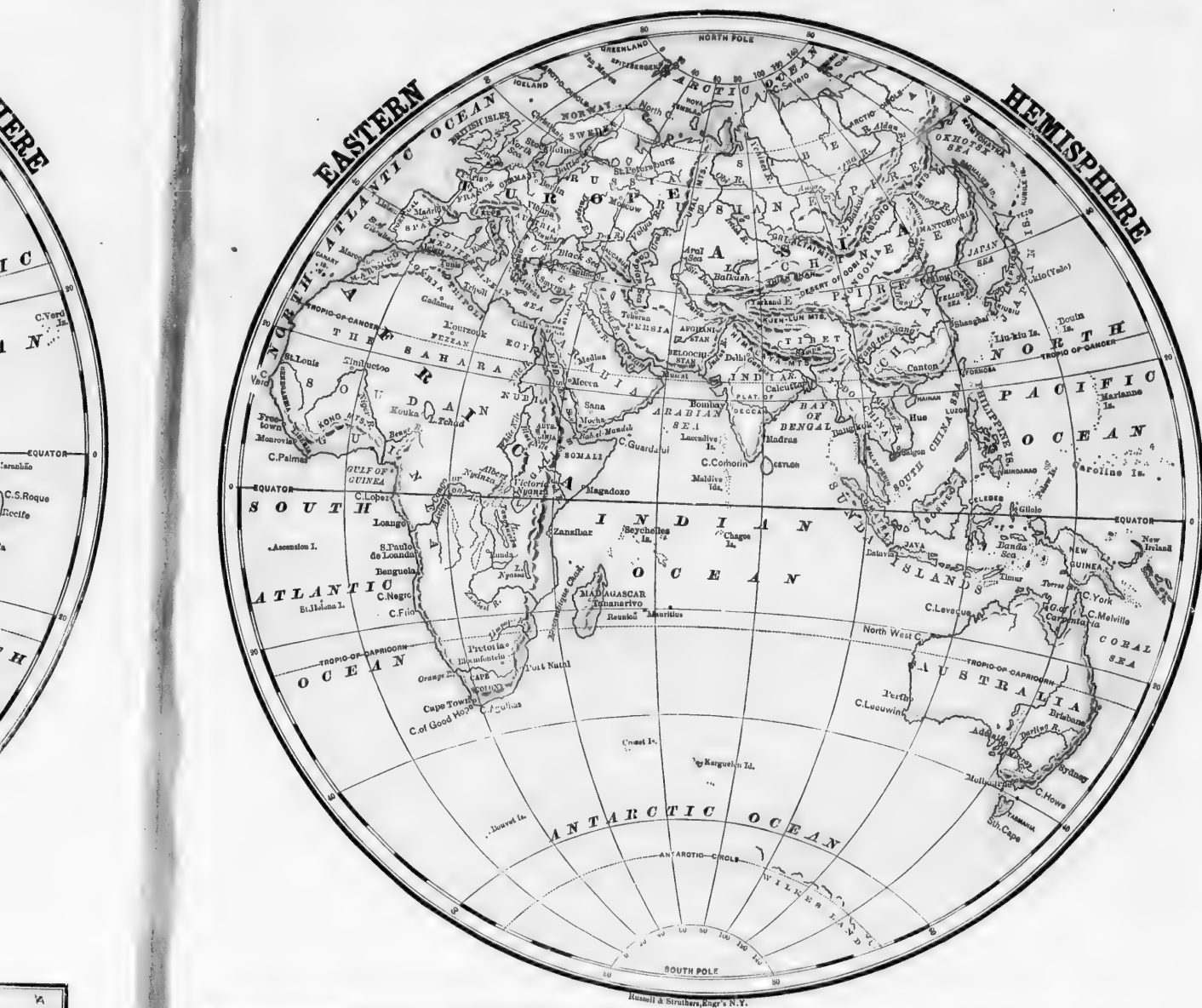


Russell & Strathern, Esq's N.Y.

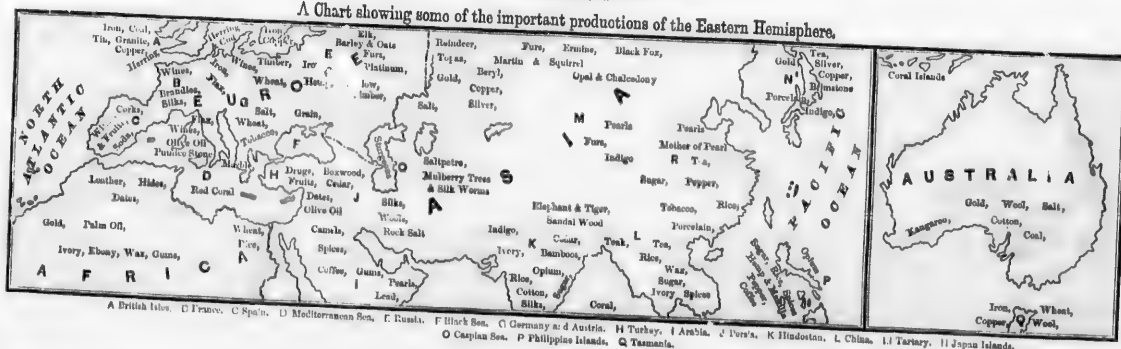
A Chart showing some of the important productions of British North America.



A Queen Charlotte Island. B Vancouver Island. C British Columbia. D Rocky Mountains. E Deer Lake. F Lake Winnipeg. G Manitoba. H Lake Superior. I Lake Michigan. J Lake Huron. K Lakes Erie. L Lake Ontario. M City of Montreal. N Island of Anticosti. O Newfoundland. P Prince Edward Island. Q Halifax. R Cape Breton Island.



A Chart showing some of the important productions of the Eastern Hemisphere.





## SKETCH OF GENERAL GEOGRAPHY.

## I. THE WORLD DIVIDED INTO HEMISPHERES.

1. **The World** is generally divided into the Western and Eastern Hemispheres.

It is also divided into the Northern and Southern Hemispheres.

2. **The Western Hemisphere, or New World**, was discovered by Columbus only about 400 years ago. It contains less land surface and a greater water one than the Eastern Hemisphere. Its grand divisions are North and South America, and Oceania in part.

The great mountain-ranges of the Western Hemisphere, and two of its great rivers, the Mississippi and the Paraguay or Rio de la Plata, run in a southerly direction; while the Parí Mountains in South America, and two other great rivers, the Amazon and the St. Lawrence, run in an easterly direction. The route by Cape Horn, south of the Island of Tierra del Fuego, was, after its discovery by Schouten, the common highway between Eastern America and Asia, and between Europe and the Pacific; but now the shorter route to these places is by the Isthmus of Darien or Panama, which connects North and South America. It is expected that the much more direct route through British North America to the Northern Pacific and Asia by the St. Lawrence, the great Lakes, and the Canada Pacific Railroad (now in course of construction), will yet be the great highway to the vast countries of Asia.

3. **The Eastern Hemisphere, or Old World**, was the cradle of our race, the scene of the Saviour's advent, and the first abode of Christianity. It contains all those celebrated countries of antiquity which are mentioned in the Holy Scriptures and in books of history.

This Hemisphere is noted for its lofty mountain-ranges and elevated table-lands, which form

nearly three-fourths of the whole surface. Its principal mountain-ranges, and six of its great rivers (the Danube, in Europe, the Ganges, Yang-tse-keang, Hoangho, and Amoor, in Asia, and the Zambesi, in Africa) chiefly run in an easterly direction. The shorter mountain-ranges along the eastern coast of Asia, with the rivers Indus, Tigris, and Euphrates, in Asia, the Volga and Dnieper, in Europe, and the Niger, in Africa, run in a southerly direction; while the Ural Mountains, and the rivers Lena, Yenisei, Obi, in Asia, and the Nile, in Africa, run toward the north. The Congo, in Africa, runs in a westerly direction. The European part of this Hemisphere has long been the seat of Christian civilization and of commerce; the influence of both of which is now rapidly spreading to every part of the habitable globe. Around the Cape of Good Hope was formerly the chief passenger-route from Europe to India and China; but a much shorter one by the canal through the Isthmus of Suez, which connects the Continents of Asia and Africa, is now followed.

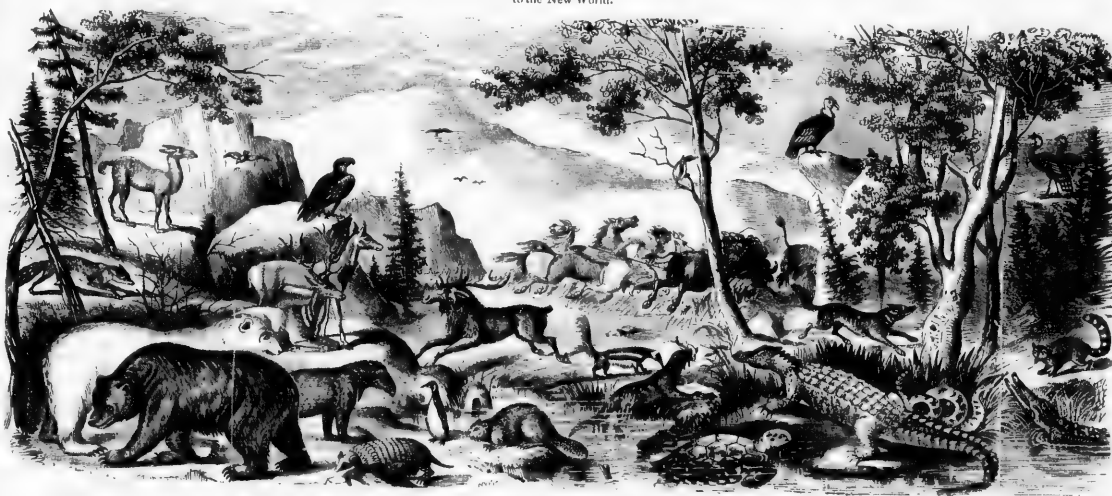
4. **The Northern Hemisphere** is projected on the plane of the horizon of London, and contains two-thirds of the land-surface of the globe; so that, in this Hemisphere, the world's metropolis is situated in about the centre of the habitable parts of the earth.

5. **The Southern Hemisphere** is nearly all covered with water; the only large portions of land in it being Australia and part of South America. It contains almost the whole of Polynesia. New Zealand is nearly in the centre of this vast expanse. In the greater portion of this Hemisphere it is mid-winter in June, and mid-summer in January.

## PART II.

## NORTH AMERICA.

Named from Amerigo Vespucci, a Florentine astronomer, who made several voyages to the New World soon after its discovery by Columbus, and who in 1507 first published an account of a voyage to the New World.



THE PRINCIPAL ANIMALS ON THE CONTINENT OF AMERICA.

1. **Boundaries.**—North America is bounded on the north, by the Arctic Ocean; on the east, by the Atlantic Ocean; on the south, by the Gulf of Mexico and Pacific Ocean; and on the west, by the Pacific Ocean.

2. **Form.**—It consists of a large triangular-shaped portion of land, broadest at the north, and tapering almost to a point at the south.

3. **Position.**—It extends from about  $82^{\circ}$  to  $7^{\circ}$  N. Lat., and from  $20^{\circ}$  to  $168^{\circ}$  W. Long.

4. **Extreme Points.**—North, *Murchison Point*, in Boothia Peninsula, Felix,  $71^{\circ} 55'$  N. and  $92^{\circ} 25'$  W. (the islands in the north extend beyond  $83^{\circ}$  N.); south, *Mariato Point* ( $7^{\circ} 11'$  N. Lat.); east, *Cape St. Charles*

( $55^{\circ} 35'$  W.,  $52^{\circ} 17'$  N.); west, *Cape Prince of Wales* ( $167^{\circ}$  W.,  $65^{\circ} 30'$  N.).

5. **Extent.**—(a.) The extreme length from Cape Lisburn on the west coast, in the Arctic Ocean, to the Isthmus of Panama, is about 5600 miles. The extreme breadth from Cape Canso to the mouth of the Columbia River is about 3120 miles. (b.) The area of North America, exclusive of Greenland, is about 8,200,000 square miles, more than twice that of Europe. (c.) The coast line is about 24,000 miles, or one mile of coast for 359 square miles of surface.

6. **Population.**—The estimated population of North America amounts to about 59,500,000.

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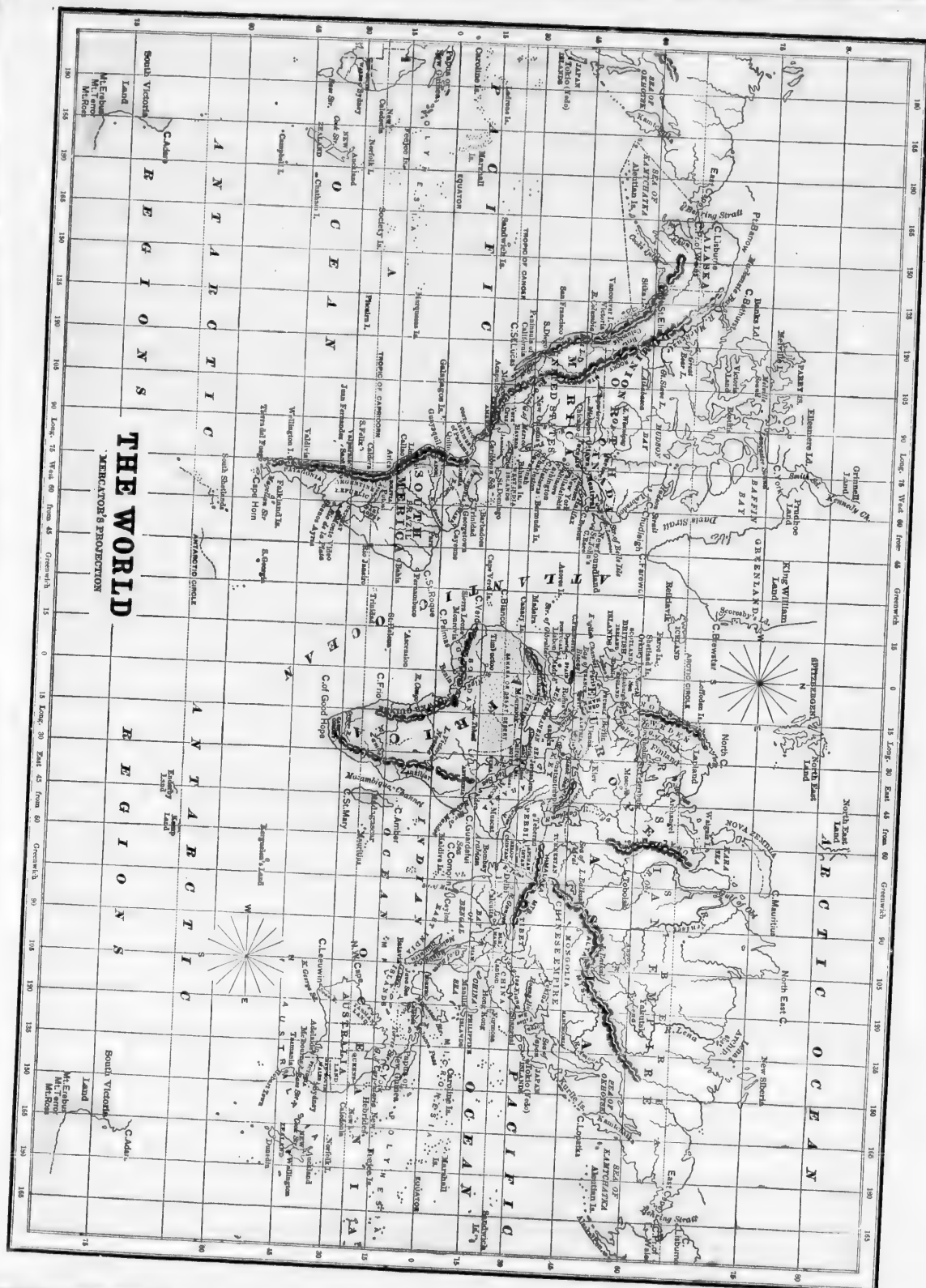
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## 7. POLITICAL AND TERRITORIAL DIVISIONS OF NORTH AMERICA.

| Name.                         | Position.                                | Area in Eng. sq. miles. | Population (about). | Capital.              | Lat. N. | Lon. W. | Where situated.             | Population of Capital. |
|-------------------------------|------------------------------------------|-------------------------|---------------------|-----------------------|---------|---------|-----------------------------|------------------------|
| 1. British North America..... | In the North of the Continent.....       | 3,827,666               | 3,914,500           | Ottawa.....           | 45° 29' | 75° 42' | River Ottawa.....           | 25,000                 |
| 2. United States.....         | South of British North America.....      | 3,611,944               | 39,000,000          | Washington.....       | 38. 53  | 77. 1   | River Potomac.....          | 100,000                |
| 3. Mexico.....                | South-west of the United States.....     | 743,948                 | 9,300,000           | Mexico.....           | 19. 25  | 99° 5   | Lake Texcoco.....           | 230,000                |
| 4. British Honduras.....      | East of Yucatan and Guatemala.....       | 7,502                   | 20,000              | Belize.....           | 17. 32  | 88. 9   | River Belize.....           | 6,614                  |
| 5. Guatemala.....             | South of Yucatan.....                    | 40,776                  | 1,200,000           | New Guatemala.....    | 14. 41  | 90. 35  | River Montagua.....         | 45,000                 |
| 6. Honduras.....              | East of Guatemala.....                   | 47,000                  | 350,000             | Tegucigalpa.....      | 15. 50  | 86. 45  | River Choluteca.....        | 12,000                 |
| 7. San Salvador.....          | South-west of Honduras.....              | 7,335                   | 500,000             | New San Salvador..... | 13. 39  | 89. 13  | Near the Pacific Ocean..... | 16,000                 |
| 8. Nicaragua.....             | South-east of Honduras.....              | 58,170                  | 300,000             | Managua.....          | 12. 10  | 86. 12  | Lake Managua.....           | 9,000                  |
| 9. Costa Rica.....            | South of Nicaragua.....                  | 21,495                  | 185,000             | San José.....         | 9. 54   | 83. 52  | River Cartago.....          | 12,000                 |
| 10. West Indies.....          | East of Central America.....             | 94,068                  | 4,600,000           | Havana, &c.....       | 23. 9   | 82. 22  | North-west coast of Cuba    | 230,000                |
| 11. Danish America.....       | North-east of British North America..... | 680,900                 | 75,500              | Reikjavik, &c.....    | 64. 8   | 21. 55  | South-west co. of Iceland   | 1,200                  |
| 12. French America.....       | South of Newfoundland.....               | 91                      | 6,100               | St. Pierre.....       | 46. 46  | 53. 14  | St. Pierre Island.....      | 300                    |

## 8. Physical Coast Features.

## I. In the Arctic Ocean:

(1.) **Islands.**—*Greenland*, north-east of British North America; *Parry Islands* (including Grinnell Land, Ellesmere, North Lincoln, North Devon, Bathurst, Melville, and Prince Patrick Islands), west of Northern Greenland; *Banks Island*, *Prince Albert Land*, *King William Island*, *Prince of Wales Island*, *North Somerset Island*, and *Cockburn Island*, between the Parry Isles and the mainland; *Cockburn Island* and *Baffin Land*, west of Davis Strait.

(2.) **Peninsulas.**—*Kent*, *Adelaide*, *Boothia*, and *Melville*.

(3.) **Capes.**—*Columbia* (83° 07' N., 70° 30' W.), the most northerly point of land yet discovered on the globe; *Lisburn*, west of Alaska; *Icy Cape* and *Point Barrow*, north of Alaska; *Demarcation Point*, between Alaska and British North America; *Bathurst*, north-west of British North America; *Murchison Point*, north of Boothia Peninsula.

(4.) **Gulfs and Bays.**—*Baffin Bay*, between Greenland and the Northern Archipelago; *Disco Bay*, *Melville Bay*, and *Peabody Bay*, west of Greenland. *Boothia Gulf*, with *Committee Bay*, between Boothia and Melville Peninsulas; *Coronation Gulf*, with *Bathurst Inlet*, between Wollaston Land and the mainland; *Mackenzie Bay*, at the mouth of the Mackenzie River; *Kotzebue Sound*, west of Alaska.

(5.) **Straits.**—(a.) Leading north from Baffin Bay:—*Smith Sound* and *Kennedy Channel*, separating Greenland from Ellesmere and Grinnell Land.

(b.) Leading west from Baffin Bay:—*Jones Sound*, between North Lincoln and North Devon. South of the Parry Isles:—*Lancaster Sound*, *Barrow Strait*, *Melville Sound*, and *McClure*, or *Banks Strait*.

(c.) Leading south from Barrow Strait:—East of North Somerset, *Prince Regent Inlet*; west of North Somerset, *Boothia Peninsula*, and *King William Land*, *Peel Sound*, *Franklin Strait*, and *Victoria Strait*.

(d.) Leading south-east from Melville Sound:—*McClintock Channel* and *Ross Strait*.

(e.) Leading west from Fox Channel:—*Fury and Hecla Strait*, joining Fox Channel and Boothia Gulf; *Bellet Strait*, joining Prince Regent Inlet and Franklin Strait; *Dense Strait*, joining Victoria Strait and Coronation Gulf; *Dolphin Strait*, joining Coronation Gulf and the Arctic Ocean.

## II. In the Atlantic Ocean:

(1.) **Islands.**—*Iceland*, east of Greenland; *Southampton*, north-west of Labrador; *Fox*, north of Labrador; *Newfoundland*, south-east of Labrador; *Anticosti*, south of Labrador; *Prince Edward Island*, east of New Brunswick; *Cape Breton Island*, north-east of Nova Scotia; *Long Island*, south-east of New York; *Bermudas*, east of South Carolina; *West Indies*, between North and South America.

(2.) **Peninsulas.**—*Labrador*, between Hudson Bay and the Atlantic; *Gaspé*, between the River and Gulf of St. Lawrence; *Nova Scotia*, between Fundy Bay and the Atlantic; *Delaware* and *part of Maryland*, between Delaware and Chesapeake Bays; *Florida*, between the Gulf of Mexico and the Atlantic; *Yucatan*, between the Gulf of Mexico and the Caribbean Sea.

(3.) **Capes.**—*Cape Farewell*, south of Greenland; *Cape Henrietta Maria*, south of Hudson Bay; *Cape Wolstenholme*, north-east of Hudson Bay; *Cape Chudleigh*, north-west, and *Cape Charles*, south-east of Labrador; *Cape Race*, south-east, *Cape Freels*, north-east, and *Cape Roy*, south-west of Newfoundland; *Cape Canso*, north-east, and *Cape Sable*, south-west of Nova Scotia; *Cape Ann* and *Cape Cod*, at the entrance to Massachusetts Bay; *Cape May* and *Cape Henlopen*, at the entrance to Delaware Bay; *Cape Charles* and *Cape Henry*, at the entrance to Chesapeake Bay; *Cape Hatteras*, east of North Carolina; *Cape Sable* or *Tancah*, south of Florida; *Cape Palmer*, north-west, and *Cape Catoche*, north-east of Yucatan; *Cape Gracias a Dios*, east of Honduras.

(4.) **Seas, Gulfs, and Bays.**—*Greenland Sea*, south and east of Greenland; *Penny Gulf*, between Cumberland Land and Fox Land; *Hudson Bay*, with *James Bay*, west of North-East Territory; *Gulf of St. Lawrence*, between Newfoundland and New Brunswick; *Fundy Bay*, between New Brunswick and Nova Scotia; *Massachusetts Bay*, east of Massachusetts; *Delaware Bay*, between Delaware and

New Jersey; *Chesapeake Bay*, in Maryland and Virginia; *Appalachian Bay*, north-west of Florida; *Gulf of Mexico*, south of the United States; *Bay of Campeche*, west of Yucatan; *Bay of Honduras*, between Honduras and Belize; *Mosquito Bay*, east of Costa Rica; *Caribbean Sea*, between Central America and the West Indies.

(5.) **Straits.**—*Davis Strait*, joining Baffin Bay and the Atlantic; *Fox Channel*, leading north from Hudson Bay to the east of Southampton Island and Melville Peninsula; *Frobisher* and *Hudson Strait*, joining Hudson Bay to the Atlantic Ocean; *Strait of Belle Isle*, between Labrador and Newfoundland; *Strait of Florida* or *Bahama Channel*, between Florida and Cuba; *Yucatan Channel*, between Yucatan and Cuba.

(6.) **Isthmus.**—*Chignecto*, eight miles wide, joining Nova Scotia and New Brunswick.

## III. In the Pacific Ocean:

(1.) **Islands.**—*Vancouver* and *Queen Charlotte Islands*, west of British North America; *Prince of Wales Island*, *Sitka*, *Kodiak*, and the *Alutian Archipelago*, south and west of Alaska; *St. Lawrence*, or *Clark Island*, in Behring Strait.

(2.) **Peninsulas.**—*Lower California*, between the Gulf of California and the Pacific Ocean; *Alaska*, between the Pacific and Arctic Oceans; *Kenai Peninsula*, south of Alaska; *Alaska*, separating the Pacific Ocean from Behring Sea.

(3.) **Capes.**—*Cape Prince of Wales*, *Romanoff*, and *Newenham*, west of Alaska; *Flattery*, *Blanco*, *Mendocino*, *Conception*, west of the United States; *Cape San Lucas*, south of Lower California; *Corrientes*, west of Mexico; *Mariato Point*, the extreme southern point of North America.

(4.) **Gulfs and Bays.**—*Norton Sound* and *Bristol Bay*, west of Alaska; *Cook Inlet*, between Kenai or Tchongatchis Peninsula and the mainland of Alaska; *Georgia Gulf*, between Vancouver Island and the mainland of British Columbia; *Gulf of California*, west of Mexico; *Bay of Panama*, south of the Isthmus of Panama.

(5.) **Straits.**—*Behring Strait*, between Alaska and Siberia; *Dixon Entrance*, between Prince of Wales Island and Queen Charlotte Island; *Queen Charlotte Sound*, between Vancouver Island and the mainland of British Columbia; *Strait of Juan de Fuca*, between Vancouver Island and the United States.

(6.) **Isthmuses.**—*Tehuantepec*, 130 miles wide, between the Pacific Ocean and the Gulf of Mexico; *Panama*, 30 miles wide, joining Central America and South America.

## 9. Physical Features of the Interior.

**I. Mountains.**—The mean elevation of North America is 743 feet. Its two great mountain systems are: **The Pacific System**, and **The Atlantic System**.

**I. The Pacific System** consists of two main divisions, the Pacific Range and the Rocky Mountain Ranges.

**I. The Pacific Range** extends along the Pacific Coast from Alaska to Cape San Lucas in Lower California. It has three subdivisions.

(a.) *The Sea Alps* extend from Alaska to the mouth of the Frazer River in British Columbia. Highest summits, Mount St. Elias, 19,500 feet, the highest summit in North America, and Mount Fairweather, 14,782 feet.

(b.) *The Cascade Range* extends from the mouth of the Frazer River to Cape Blanco. Highest summits, Mount St. Helens, 15,750 feet; Mount Hood, 12,000 feet; and Mount Jefferson, 15,500 feet.

(c.) *The Sierra Nevada* extends from Cape Blanco to Cape San Lucas. Highest summits, Mount Shasta Butte, 14,440 feet, and Mount Dana, 13,000 feet. South of Mount Dana, the Sierra Nevada is called *Sierra de Santa Lucia*, in which is Mount Whitney, 15,000 feet. *The Coast Range*, west of the Sierra Nevada, extends between the parallels of 41° and 54° N. Lat. Highest summits, Monte Diablo, 5674 feet, and Mount Hamilton, 4433 feet.

**2. The Rocky Mountain Ranges** extend from the Arctic Ocean to the Isthmus of Panama, sometimes in double, and sometimes in triple chains. There are several subdivisions.

|       | Population of Capital. |
|-------|------------------------|
| ..... | 25,000                 |
| ..... | 100,000                |
| ..... | 230,000                |
| ..... | 6,614                  |
| ..... | 45,000                 |
| ..... | 12,000                 |
| ..... | 16,000                 |
| ..... | 9,000                  |
| ..... | 12,000                 |
| ..... | 230,000                |
| ..... | 1,200                  |
| ..... | 300                    |

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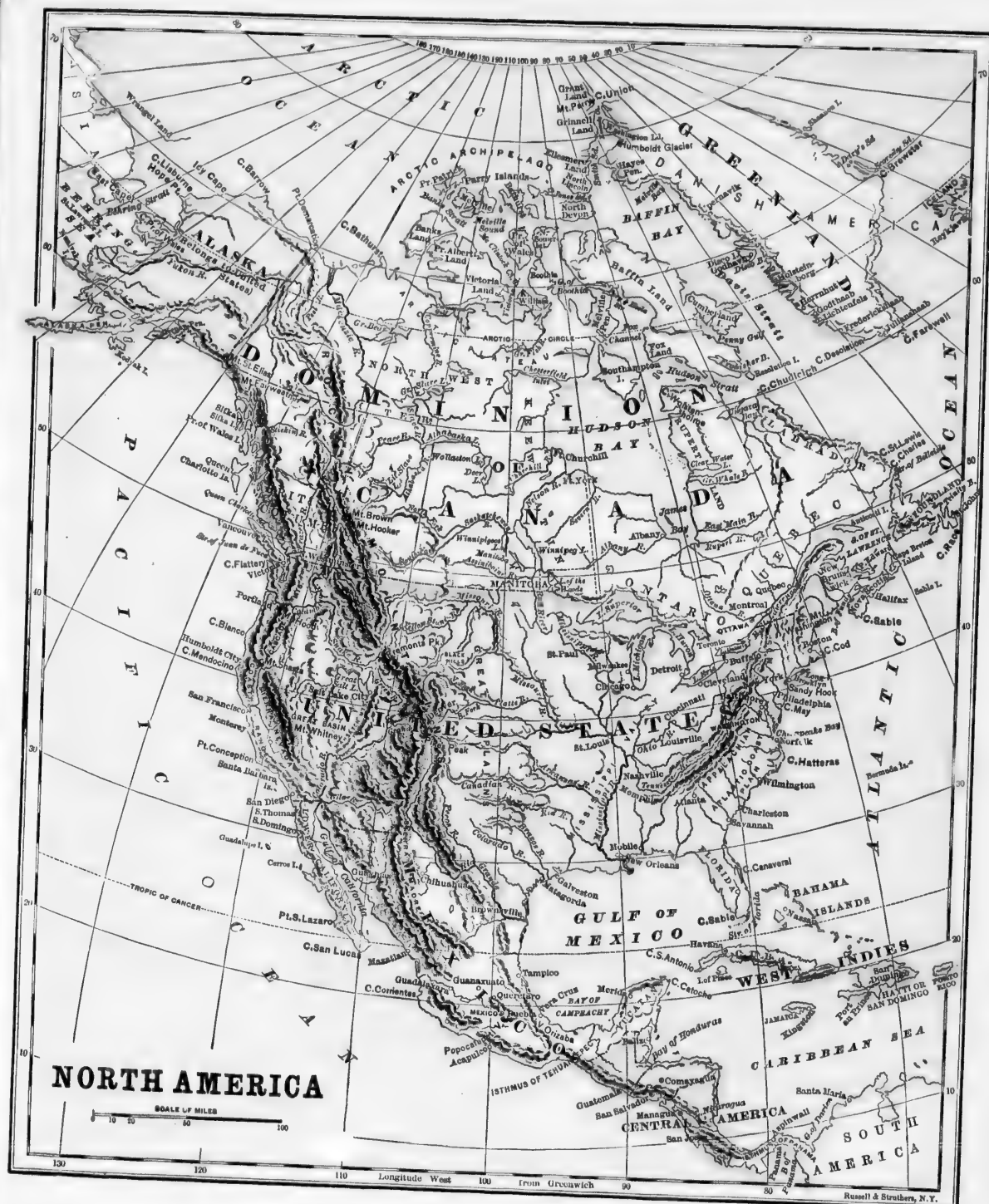
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(a.) *The Northern Ranges* extend from the Arctic Ocean to the northern boundary of the United States. Highest summits, Mount Hooker, 16,750 feet; Mount Murchison, 15,789 feet; and Mount Brown, 16,000 feet.

(b.) *The Wind River Mountains* extend from the northern boundary of the United States to the Platte River. Highest summit, Fremont's Peak, 13,576 feet.

(c.) *Long's Peak*, 13,000 feet, *Pike's Peak*, 14,216 feet, and *Spanish Peaks*, 12,000 feet, continue the eastern range southward from the Wind River Mountains to the

(d.) *Cordillera of Coahuila and Potosi*, which runs southward from the Rio Grande and forms the eastern edge of the Plateau of Mexico.

(e.) *Sierras Verde, Mimbres, and Madre* continue the western range southward from the Wind River Mountains, and form the western edge of the Plateau of Mexico.

(f.) *The Cordillera de Sierra* skirts the eastern coast of the Gulf of California, from the Rio Gila, and unites with Sierra Madre and the Cordillera of Potosi, north of Guanaxaco.

(g.) *Mountains of Anahuac*, in Southern Mexico, extend from east to west across the Plateau. Highest summits, Orizaba, or Citlaltepetl (Mount of the Star), 17,374 feet, and Popocatepetl (Mount of Smoke), 17,773, the highest summit but one of North America.

(h.) *Cordillera of Guatemala* in Central America. Highest summits, Agua, 13,000 feet, and Fuego, 13,800 feet.

(i.) *Mountains of Veragua*, in the Isthmus of Panama. Height 5000 feet.

**II. The Atlantic System**, called also the Alleghany or Appalachian System, extends from the Gulf of St. Lawrence to Georgia; length, 2000 miles; breadth, from 150 to 200 miles; average height, 2500 feet. General direction, from north-east to south-west. The Atlantic System is divided into two sections, a northern and a southern, by the valleys of the Mohawk and the Hudson.

The chief ridges in the northern section are:

(a.) *The White Mountains*, in New Hampshire; highest summit, Mount Washington, 6428 feet; (b.) *The Green Mountains*, in Vermont; and (c.) *The Adirondack Mountains*, in New York.

The chief ridges in the southern section are:

(a.) *The Blue Ridge*, east, (b.) *The Shenandoah Ridge*, central, and (c.) *The Alleghany Ridge*, west. Highest summit of the Appalachian System, Black Mountain, or Mount Guyot, 6476 feet, in North Carolina, at the south end of the Blue Ridge.

**2. Highlands.**—(A.) *The Arctic Highlands* comprise elevated tracts extending along the Arctic coasts from Hudson Bay to the mouth of the Mackenzie River.

(B.) *The Western or Pacific Highlands* extend from the Arctic Ocean to the Isthmus of Panama.

(a.) *The Northern Plateau of the Rocky Mountains* lies between the Northern Ranges of the Rocky Mountains. Height from 1000 to 3000 feet.

(b.) *The Great Basin* extends from the Rocky Mountains to the Sierra Nevada, and from 45° to 34° N. Lat. Height from 5000 to 7000 feet; area, 300,000 square miles.

(c.) *The Plateau of Mexico, or Anahuac*, extends from Santa Fé (35° 41' N. Lat.) to the Isthmus of Tehuantepec (17° N. Lat.). Length 1200 miles; greatest breadth 360 miles; mean height 7000 feet.

(d.) *The Plateau of Guatemala* extends from the Isthmus of Tehuantepec to the Isthmus of Panama. Height at western side, 5000 feet. Its elevation rapidly decreases towards the south-east, the mean height of the Isthmus of Panama being 850 feet.

(C.) *The Eastern or Atlantic Highlands* extend from Hudson Strait to the Gulf of Mexico. Length, 2500 miles; breadth, from 150 to 200 miles, except in Labrador, where it is 400 miles.

(a.) *The Plateau of Labrador*, north of the St. Lawrence. Height 2240 feet.

(b.) *The Appalachian Plateau*, south of the St. Lawrence. Mean height 2500 feet; area 20,000 square miles.

**3. Plains.**—(A.) *The Great Central Plain* extends from the Arctic Ocean to the Gulf of Mexico, and is divided into a *Northern* and a *Southern Slope* by the *Height of Land* which crosses the continent, north of Lake Superior, in Lat. 48°, and unites the Pacific and Atlantic Highlands. Length from north to south 3000 miles; area 3,250,000 square miles. The average height of the Northern Slope is from 500 to 700 feet, and of the Southern about 500 feet.

There are two principal subdivisions of the Northern Slope:

(a.) *The Northern Plains* extend from the mouth of the Mackenzie River to the Height of Land between the slopes of the Rocky Mountains and the water-parting extending from Lake Superior to the Arctic shores.

(b.) *The Great Northern Plain* extends from the shores of Hudson and James Bay inland to the water-partings of the rivers that flow into them.

The Southern Slope is intersected by the Mississippi River.

(a.) *The Prairies and Savannas* extend from the Height of Land to the swampy flats of the Gulf Slope, between the slopes of the Rocky Mountains and Lake Michigan. The *Great Western Plain* is the higher terrace of the prairie lands next the Rocky Mountains. The *Llano Estacado* is the southern part of the Great Western Plain.

(b.) *The Woodlands* extend between the Mississippi and the Appalachian Mountain System.

(c.) *The Gulf Slope* skirts the northern shore of the Gulf of Mexico.

(B.) *The Atlantic Plain* extends from the Gulf of St. Lawrence to the Gulf of Mexico, between the Alleghanies and the Atlantic. At its southern extremity it joins with the Great Central Plain. It is narrow in the north, but towards the south spreads out to 300 miles. Its greatest elevation above the sea is 1000 feet. It is divided by the *Ridge*, a line of cliffs running from Massachusetts to Alabama, into the *Atlantic Slope*, and the *Seaboard Plain*, the latter nowhere more than 100 feet above the sea.

(a.) *The Swamps* extend from Cape Hatteras along the south-east coast to the Mississippi. The principal of these are the *Dismal Swamp*, south-west of Chesapeake Bay, and *Okefenokee*, in south-eastern Georgia.

(b.) *The Pine Barrens* are in North Carolina.

(c.) *The Everglades* are low, flat, wooded swamps in the south of Florida.

#### 4. Water-Partings.

(a.) *The Rocky Mountains* form the great water-parting of the continent. The waters west of them flow into the Pacific, and those east of them into the Arctic and Atlantic Oceans.

(b.) *The Alleghany Mountains* part the waters flowing into the Atlantic from those flowing into the Mississippi and the St. Lawrence.

(c.) *The Height of Land*, about 1500 feet high, divides the waters flowing northwards to the Arctic Ocean and to Hudson Bay from those flowing southwards to the Gulf of Mexico and the St. Lawrence. Between the Hudson Bay rivers and the tributaries of the St. Lawrence the water-parting bears the name of the *Laurentian* or *Laurentide Mountains*, and farther east the *Witchish Mountains*.

(d.) A low water-parting, extending from Lake Superior to the Arctic Ocean, divides the Northern Slope of the Central Plain into two basins—an eastern and a western. The waters of the eastern basin drain into Hudson and James Bay, and those of the western basin into the Arctic Ocean.

**5. The Rivers** may be arranged as follows:

(A) *The Arctic System*, (B) *the Atlantic System*, (C) *the Pacific System*, and (D) *the Continental System*.

(A.) *The principal Rivers of the Arctic System.*

(a.) *The Colville*, a large river in Alaska, enters the sea near Point Barrow.

(b.) *The Mackenzie*, discovered by Alexander Mackenzie in 1789, rises in a lake at the foot of Mount Brown, within 200 yards of the source of the Columbia. After a course of 900 miles, under the name of the *Athabasca*, it enters Lake Athabasca, which receives also the *Peace River*. From Lake Athabasca to Great Slave Lake it is called *Slave River*, and from Great Slave Lake to its mouth, *Mackenzie River*. It flows through a fertile and finely-wooded plain. On its left bank it receives the *Turnagain*, or *Au Liards*, at Fort Simpson, and on its right bank, *Bear River*, which drains Great Bear Lake. Its delta begins about 90 miles from the sea, and extends about 40 miles along the Arctic shore. It is navigable for 1200 miles from its mouth. Length 2470 miles; area of basin 590,000 square miles.

(c.) *The Coppermine*, discovered by Hearne in 1771, rises in a rocky country between Great Slave and Great Bear Lakes, and flows north into George the Fourth Gulf. It has many strong rapids.

(d.) *The Back or Great Fish River* rises to the north of Lake Aylmer, near Great Slave Lake, flows north-east to an inlet south of King William Land, on which the final traces of Franklin's expedition were found, in 1859, by Sir L. McClintock. It traverses the most barren part of the Tundra Region. Length of basin 420 miles.

(B.) *The Rivers of the Atlantic System* may be arranged in four sections:

**I. The Water-shed of Hudson and James Bay.**

*Principal Rivers.*—(a.) *The Churchill, or English River*, rises in an angle of two mountain spurs which run eastward from the Rocky Mountains. It is a continuation of the *Beaver* and *Mississippi*, and is augmented by the waters of Wollaston and Deer Lakes. Length 950 miles; area of basin 73,600 square miles.

(b.) *The North Saskatchewan (Swift Current)* rises, at an elevation of 13,400 feet near Mount Hooker, close to the sources of the

Columbia River. The *South Saskatchewan*, or *Bow River*, rises near the Kootanie Pass. After a winding course of about 700 miles, the two branches meet, and the united river flows 340 miles, by *Cedar River* and Lake, to Lake Winnipeg, from which it issues at the northern extremity under the name of the *Nelson River*. It empties into Hudson Bay at Port Nelson. Length 1300 miles; area of basin 360,000 square miles.

(c) The *Red River*, sometimes called the *Red River of the North*, rises in Otter-tail Lake, State of Minnesota, and flows north into Lake Winnipeg. It receives from the east the *Rougeau* from Lake Roueau, and from the west the *Shayenne*, the *Pembina*, and the *Assiniboine*. The *Assiniboine* is the chief tributary, and joins the Red River at Fort Garry, 60 miles from Lake Winnipeg. The *Qu'Appelle* (Who Calls) River and the *Little Souris River* are tributaries of the *Assiniboine*.

Minor Rivers.—*Savern, Albany, Moose, Rupert, Abitibi, East Main, Great Whale, and Clear Water.*

## II. The Water-shed of the Atlantic Proper.

**Principal River.**—The *St. Lawrence* rises in 47° 43' N. Lat. and 93° W. Long. It is called *St. Louis* between its source and Lake Superior; *St. Mary*, between Lake Superior and Lake Huron; *St. Clair*, between Lake Huron and Lake St. Clair; the *Detroit*, between Lake St. Clair and Lake Erie; the *Niagara*, between Lake Erie and Lake Ontario. It was originally called the *Iroquois*, or *Cataragui*, between Lake Ontario and Montreal, and the *St. Lawrence* from Montreal to Cape Gaspé. At the foot of Lake Ontario, the *St. Lawrence* forms the beautiful Lake of the Thousand Isles, and in its north-easterly course from that lake expands into Lakes *St. Francis*, *St. Louis*, and *St. Peter*. The chief rapids between Kingston and Montreal are the Galops, Long Sault, Coteau, Cedars, Cascades, and Lachine. At Quebec the *St. Lawrence* is two miles wide. After passing the Island of Orleans, it rapidly widens, and at the mouth of the Saguenay is eighteen miles broad. Its estuary is 350 miles long and 100 miles wide at its mouth. Length of river from Lake Ontario, 750 miles. Total length, through the lakes, 2200 miles. Area of basin 600,000 square miles; navigable waters 4000 miles. It is navigable for the largest ships of war to Quebec, and for vessels drawing twenty-two feet to Montreal, the head of ocean navigation.

Its principal tributaries are, on the south bank, the *Richelieu*, the *St. Francis*, and the *Chaudière*; and on the north bank, the *Ottawa*, the *St. Maurice*, and the *Saguenay*.

Minor Rivers.—*St. John, Connecticut, Hudson, Delaware, Susquehanna, Potomac, James, Roanoke, Neuse, Cape Fear, Great Peele, Santee, Savannah, Altamaha.*

## III. The Water-shed of the Gulf of Mexico.

**Principal Rivers.**—1. The *Mississippi* (Father of Waters) rises in Lake Itasca, a beautiful sheet of water about 8 miles in length (47° 31' N. Lat., 95° 35' W. Long.), west of Lake Superior, in the Missabay Heights, 1680 feet above the level of the sea. When it issues from the lake it is only 17 feet wide and 15 inches deep. It flows south, and falls into the Gulf of Mexico after a course of about 3200 miles. Its delta covers nearly 14,000 square miles. The length of the Mississippi to the source of the Missouri is 4300 miles. Area of basin 1,350,000 square miles; navigable waters 35,000 miles. The Mississippi is navigable for boats from the sea to the falls of its principal branch, the Missouri, 1700 miles from the Mexican Gulf in a direct line, or 3900 by the stream.

Its principal tributaries on the west are: (a.) The *Missouri* (Mud River), 3100 miles long, from the Trois Tétons (43° 38' N. Lat., 110° 49' W. Long.), in the Wind River Mountains, with its affluents the *Yellowstone*, *Platte*, and *Kanaka*, joining the Mississippi above St. Louis. (b.) The *Arkansas*, 2000 miles long, from the Sierra de las Grullas (Crane Mountains), with its affluent the *Canadian*, joining the Mississippi at Napoleon; and (c.) The *Red River*, or *Rio Roxo*, 1500 miles long, also from the Crane Mountains, joining the Mississippi below Natchez.

Its principal tributaries on the east are: (a.) The *Wisconsin*; (b.) the *Illinois*; and (c.) the *Ohio* (Beautiful River), 1300 miles long, which joins the Mississippi at Cairo.

2. The *Rio Bravo del Norte* rises about the parallel of 40° north, in the Sierra de las Grullas, flows south between the Sierra Madre and the Rocky Mountain Chain, then turning to the east, breaks through the Cordillera of Cohahueta, and flows south-east between Mexico and the United States, enters the Gulf of Mexico below Matamoras. Its principal tributary on the east is the *Pecos*. Length 1500 miles; area of basin 240,000 square miles.

Minor Rivers.—Between the Mississippi and the Rio Grande, the *Sabine*, *Drum*, and the *Colorado*; between the Rio Grande and the Peninsula of Yucatan, the *Santander*, the *Tahaca*, and the *Usumasinta*.

## IV. The Water-shed of the Caribbean Sea.

*Honda, Belise, Montagua, Segovia, and San Juan.*

## (C.) The principal Rivers of the Pacific System:

(a.) The *Rio Grande Santiago* rises on the Plateau of Toluca, flows north-west, passing through Lake Chapala, and ends near San Blas. It receives from the north the *Silas*. Length 350 miles; area of basin 30,000 square miles.

(b.) The *Rio Colorado* rises in the Sierra Verde, receives on the right bank the *Green River*, from the Wind River Mountains, and on the left the *Rio Colorado Chiquito*, or *Little Colorado*, and the *Rio Gila*, both from the Sierra Madre, and falls into the Gulf of California. The Colorado is noted for its vast cañons, the chief of which, the Grand Cañon, is 30 miles in length, with sides towering from 1000 feet to nearly a mile in perpendicular height. Length 1000 miles; area of basin 200,000 square miles.

(c.) The *Sacramento* rises in the Sierra Nevada, and flows south, and

(d.) The *San Joaquin* flows north between the Sierra Nevada and the Coast range. These rivers unite before entering San Francisco Bay. Area of basin 20,000 square miles.

(e.) The *Columbia* rises in Mount Hooker, near the sources of the Saskatchewan. After breaking through the Selkirk Range, near Mount Brown, it flows southward for 300 miles, and receives the *Kootanie*, and the *Clarke*, or *Flat Bow*, at the United States boundary line. When it reaches the great plain of Columbia, it turns abruptly westward. After receiving the drainage of Lake Okanagan, 60 miles in length, in British Columbia, it again turns southward, and is joined by the *Snake River* or *Lewis Fork* from the Trois Tétons, in the northern part of the Wind River Mountains, not far from the sources of the Missouri. After receiving the *Snake River* it again turns westward and breaks through the Cascade Range, the mountains rising on each side of the cañon to the height of 10,000 feet. It enters the Pacific at Astoria, by an estuary seven miles wide. Length 1020 miles; area of basin 298,000 square miles.

(f.) The *Fraser* rises near Mount Brown, not far from the sources of the Athabasca. It flows first north-west and enters Moose Lake, 15 miles long, in the Yellowhead Pass. Issuing from the lake, it makes a great bend by north and west, then flows south, and finally west into the Gulf of Georgia. The Fraser is a river of lakes, waterfalls, and rapids. In passing the Cascade Range it rushes through a cañon 50 miles in length, with mountains on each side rising to the height of 6000 or 7000 feet. Its delta begins at New Westminster, 10 miles from the coast. Length 800 miles; area of basin 90,000 square miles. Its tributaries on the right bank are: the *Stuart*, *Chilcoaten*, and *Harrison*; and on the left, the *Quesnelle*, and the *Thompson* with its affluent the *Shoushwap*.

(g.) The *Yukon*, or *Kwicksack*, rises in the Rocky Mountains, under the name of the *Pelly*. It flows north-west, and receives its chief tributary, the *Porcupine*, at Fort Yukon. It then flows westward to Nulato, 350 miles from its mouth, where it is a mile wide, and after turning to the south-west and west, enters the sea near Cape Romanzoff by three main branches. It is navigable for 1800 miles, but is frozen over for the greater part of the year. The sea-front of its delta measures 40 miles. Length 2000 miles; area of basin 200,000 square miles.

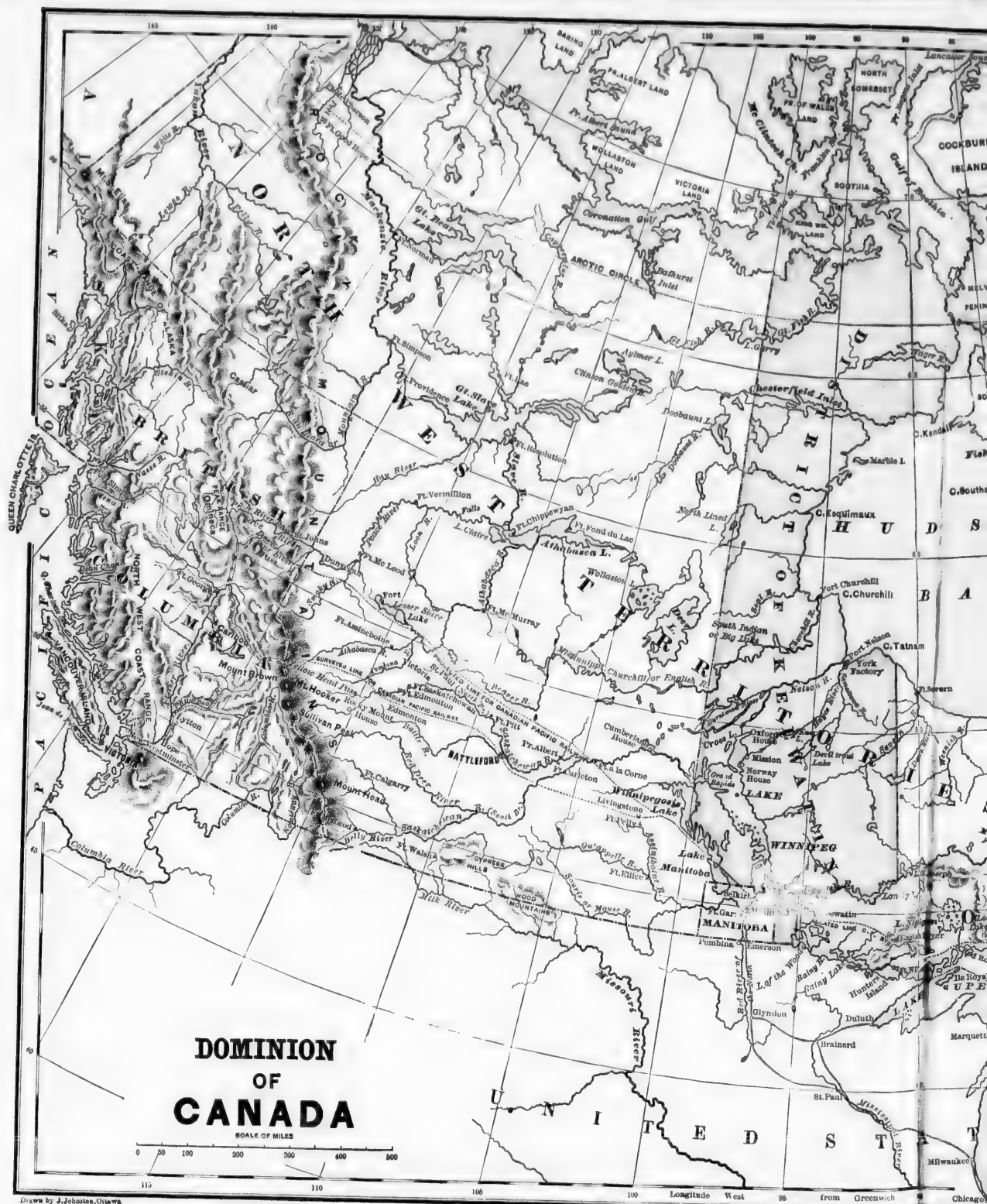
Minor Rivers.—In British Columbia: *Simpson* or *Skeena*, and the *Stikkeen*.

## (D.) The principal Rivers of the Continental System:

(a.) The Great Basin forms an interior closed river system, in which the chief rivers are: *Bear River*, which enters Great Salt Lake from the north, the *Jordan*, from Lake Utah, which enters it from the south, and *Humboldt River*, which flows into Humboldt Lake.

(b.) The Plateau of Mexico presents a second basin of continental streams, the chief of which is the *Rio Grande*, which flows north and enters Lake Parras. Length 300 miles.

6. Lakes.—The estimated area of the lakes of North America is 150,000 square miles. The lakes may be arranged in four divisions:



Drawn by J. Johnston, Ottawa





(A.) **The Arctic Division.**—(1.) *Lake Wollaston*, on the water-parting between the Mackenzie and Churchill River basins. It communicates with Lake Athabasca in the basin of the former river, and with Rein Deer Lake in the basin of the latter. It is full of islands. It is ring-shaped, and has a circumference of about 300 miles. (2.) *Lesser Slave Lake* drains into the Athabasca River. (3.) *Lake Athabasca* extends from west to east. It is drained by Slave River, which issues from its western extremity into Great Slave Lake. Length 250 miles; breadth 40 miles; area 3400 square miles. (4.) *Great Slave Lake*, so named from a tribe enslaved by its more warlike neighbors, has a very irregular outline, with bays and promontories. *Lakes Aylmer and Clinton*, to the north-east of it, are tributaries. The Mackenzie River issues from its western extremity. Length 300 miles; breadth 50 miles; area 12,000 square miles. (5.) *Great Bear Lake* is connected with the Mackenzie River by Bear River. Its northern shores are rugged and precipitous. It has five deep bays. Height above sea-level 230 feet; length 250 miles; breadth 250 miles; area 14,000 square miles. (6.) *Lake Pelly*, in the basin of Great Fish River.

(B.) **The Atlantic Division.**

1. **Water-shed of Hudson and James Bay.**

(a.) In the basin of Chesterfield Inlet: *Lake Dubaut and Lake Baker*.  
(b.) In the basin of the Churchill.—(1.) *Lake Wollaston*, which is connected also with Lake Athabasca. (2.) *Rein Deer Lake*, drained into the Churchill by Great River. It stretches from north to south for 110 miles, and has an extreme breadth of 50 miles. (3.) *Indian Lake*, an expansion of the English River.  
(c.) In the basin of the Saskatchewan.—(1.) *Lake Winnipeg* (Dirty Water) receives the Red River at its southern extremity, and the Saskatchewan by *Cedar Lake*, which is 770 feet above sea-level, on its western side near the northern extremity. Its surplus waters are carried off by the Nelson River, which issues from its northern extremity, and empties itself into Hudson Bay. Height above the sea 710 feet; length 280 miles; breadth from 5 to 57 miles; area 9000 square miles. (2.) *Lake Winnipegosis* and (3.) *Lake Manitoba* lie directly west and parallel to Lake Winnipeg. The former is 770 and the latter 751 feet above the sea. Each lake is more than 100 miles in length. Lake Winnipegosis is connected with Lake Manitoba by the Sanguisippi, or Water Hen River, and Lake Manitoba is connected with Lake Winnipeg by Partridge Crop River, *St. Martin's Lake*, and Dauphin River. The principal tributary rivers of Lake Winnipegosis are Red Deer River and Swan River. (4.) *Rainy Lake*, west of Lake Superior, forms part of the boundary between Canada and the United States. It receives the surplus waters of *Lac des Mille Lacs*. Length 50 miles; breadth 39 miles. (5.) *Lake of the Woods* is a very irregularly-shaped body of water, its shores being indented with deep bays. It receives the surplus waters of Rainy Lake on the south side by Rainy River, which is 100 miles long. Winnipeg River issues from its north end, and in its course of 160 miles to Lake Winnipeg receives the waters of *Lonely Lake* by the English River. Height of Lake of the Woods above the sea 1042 feet; length 75 miles; breadth 75 miles; area 1200 square miles.

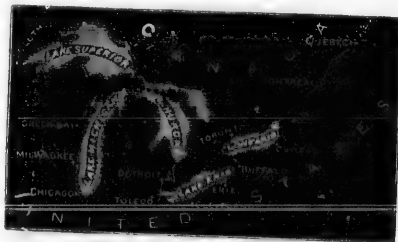
(d.) In the basin of the Abbitibe.—*Lake Abbitibe* is 60 miles in length and 20 in breadth. It is studded with islands. It is drained by the Abbitibe into James Bay.

(e.) In the basin of Rupert River.—*Lake Mistassini* extends from north-west to south-east about 100 miles, with a breadth varying from 15 to 30 miles. It contains several deep bays. Its surplus waters are carried off by Rupert River to James Bay.

2. **Water-shed of the Atlantic Proper.**

(a.) In the basin of the Koksoak.—*Lake Caniapusau*, in Labrador, is surrounded by a hilly and wooded country. It is drained by the Koksoak into Ungava Bay. Length 70 miles; breadth from 15 to 20 miles.

(b.) In the basin of the St. Lawrence.—The five great Laurentian lakes form the most magnificent and important lake system in the world. They contain half of all the fresh water of the globe. It would take the Mississippi 100 years to discharge as much water as they contain. Their combined area amounts to nearly 100,000 square miles.



GREAT LAKES OF NORTH AMERICA.

(1.) **Lake Superior** is the largest fresh-water lake in the world. It is crescent-shaped. The north shore is generally bold and rocky, and the south shore low and sandy, though occasionally intersected with limestone ridges. There are copper and silver mines of great richness along its shores and islands. It receives about 40 rivers, and 200 smaller streams. It abounds in fish, principally trout, white fish, and sturgeon. Islands are numerous along both the northern and southern shores. Isle Royale, the largest, is 50 miles long. The *St. Louis River*, which is regarded as the source of the St. Lawrence, rises at an elevation of 550 feet above Lake Superior, which it enters at the western end, between Duluth and Superior City. The *Kaministiquia River* takes its rise in *Dog Lake*, which has an area of 200 square miles, and, after a tortuous course of 60 miles, discharges its waters into Thunder Bay. About 30 miles from the mouth of the Kaministiquia are the *Kakabeka Falls*, a magnificent cascade, 130 feet in height. The *Nipigon River*, 30 miles long, is the most important tributary of Lake Superior. It drains *Lake Nipigon* into Nipigon Bay, between which and Thunder Bay is Black Bay. The shores of Lake Nipigon are deeply indented with bays. It receives numerous streams, and contains more than 1000 islands. Height above the sea 850 feet; length 60 miles; greatest breadth 50 miles; length of coast line about 300 miles.

Lake Superior discharges its surplus waters by *St. Mary's River*, which issues from its eastern extremity, and after a course of 63 miles enters Lake Huron by three channels. At its efflux from Lake Superior are the rapids of Sault Ste. Marie, which descend 22 feet in less than a mile. Two canals have been constructed on the United States side of the river to overcome this impediment to navigation.

Height of Lake Superior above the sea 630 feet; greatest depth 1200 feet; length from east to west 420 miles; breadth 160 miles; length of coast line 1650 miles; area 32,000 square miles; drainage area 100,000 square miles.

(2.) **Lake Michigan**, Great Water, formerly called *Lake Illinois* and *Lake Dauphin*, is wholly within the United States. Its shores are low and regular, and indented with few bays. Its surface is clear of islands, except a few at the northern extremity. It is connected with Lake Huron by the Mackinaw Strait, 6 miles long and 8 miles wide.

Height above the sea 578 feet; depth 900 feet; length from north to south 320 miles; breadth 80 miles; area 25,600 square miles.

(3.) **Lake Huron** is the third in size of the great lakes. It is divided into two unequal portions by a long peninsula and a chain of islands, the largest of which, Manitoulin, is 80 miles in length. The part of the lake to the east of the peninsula and Manitoulin Island is called Georgian Bay, and that between the islands and the mainland, the North Channel. On the west side of the lake is Saginaw Bay, which is 60 miles in length and 30 in greatest breadth. Georgian Bay receives the surplus waters of *Lake Nipissing*, 50 miles in length and 35 in width, by the French River; of *Lakes Joseph, Rosseau, and Muskoka*, by the Muskoka River; and of *Lake Simcoe*, 30 miles in length and 18 in width, by the Severn River.

Lake Huron is noted for its extensive fisheries, and its numerous islands, of which there are 3000. It is connected with Lake Erie by the River St. Clair, Lake St. Clair, and the Detroit River, and is 578 feet above the sea. Mean depth 1000 feet; length from north to south 280 miles; breadth 190 miles; area 24,000 square miles.

*Lake St. Clair* is an expansion of the St. Clair River. It is a shallow lake, being only 20 feet deep. It contains many islands, and receives several rivers. Height above the sea 570 feet; length 30 miles; greatest breadth 24 miles; mean breadth 12 miles; area 360 square miles.

(4.) **Lake Erie** is the shallowest of the great lakes, and is noted for its violent storms, which are often very destructive to shipping. It is elliptical in shape, and has in general low shores. It abounds with fine fish. Its surplus waters are carried to Lake Ontario by the Niagara River. This stream is 34 miles long and from three-quarters of a mile to a mile wide. The celebrated Falls of Niagara are twenty miles from Lake Erie. In the half mile of rapids above the Falls, the river descends 55 feet. Goat Island divides the cataract into the

Canadian or Horse-shoe Falls, 600 yards wide and 158 feet high, and the American Falls, 200 yards wide and 164 feet high. It is calculated that 100,000,000 tons of water fall over the precipices every minute. Below the Falls, the river rushes through a rocky chasm for eight miles, and then flows with a deep but gentle current to Lake Ontario.

The Welland Canal connects Port Colborne on Lake Erie and Port Dalhousie on Lake Ontario.

Height of Lake Erie above the sea 565 feet; depth 100 feet; length 240 miles; breadth 80 miles; length of coast line 658 miles; area 10,000 square miles.

(5.) **Lake Ontario** is the smallest, but most important for commerce, of the five great lakes drained by the St. Lawrence. Its coast is regular in the west; in the east there are many islands. It receives some rivers, the chief of which is the Oswego, which enters it on the south side. Burlington Bay is at its western extremity, and on the north shore are the Bay of Quinté and the peninsula of Prince Edward County.

Height of Lake Ontario above the sea 232 feet; depth 600 feet; length 180 miles; breadth 65 miles; area 7300 square miles.

(c.) In the basin of the Ottawa—*Lake Temiscaming*, on the boundary line between Ontario and Quebec, discharges its surplus waters into the Ottawa River. Length 97 miles; breadth 15 miles.

(d.) In the basin of the Richelieu—*Lake Champlain*, 104 miles long, drained by the Richelieu, a tributary of the St. Lawrence. It is connected with the Hudson River by a canal.

### 3. Water-shed of the Gulf of Mexico and Caribbean Sea.

*Lake Itasca*, in the Missabay Heights, 1680 feet above the level of the sea, is the source of the Mississippi River. It is a beautiful sheet of water, about eight miles in length, lying among pine-clad hills. It was discovered by Schoolcraft in 1832. *Lake Leon* or *Managua* and *Lake Nicaragua*, in the state of Nicaragua. They are in the basin of the San Juan, by which river they are drained into the Caribbean Sea. *Lake Leon* is 55 miles long and 156 feet above the sea. *Lake Nicaragua* is 140 miles in length, 40 miles in breadth, and 128 feet above the sea.

(C.) **The Pacific Division.**—*Lake Chapala*, in Mexico, 50 miles long, is drained by the Rio Grande de Santiago, which enters the sea at San Blas.—*Lake Okanagan*, in British Columbia,

60 miles long, is drained by the Okanagan River, a tributary of the Columbia.—*Moose Lake*, a fine sheet of water about 15 miles long in the Yellow Head Pass, on the Fraser River, a few miles from its source.

(D.) **The Continental Division.**—(a.) In the Great Basin.—*Great Salt Lake*, discovered by Escalante in 1776, is 75 miles long and 35 miles wide. Its area is 1800 square miles. Height above the sea 4210 feet. It is strongly impregnated with salt. *Utah Lake*, a fresh water lake, is 35 miles long, and has an area of 150 square miles. It is connected with Great Salt Lake by the River Jordan.

(b.) In the Plateau of Mexico.—*Lake Texcoco* is one of a series of five lakes which cross the table-land from north to south. Its waters are strongly impregnated with salt. It is 15 miles long and 9 miles wide. Its greatest depth is 10 feet. Mexico is situated on its west bank.

**Summary.**—(1.) The principal lakes of the Arctic Water-shed are: Lesser Slave, Athabasca, Great Slave, and Great Bear.

(2.) The principal lakes of the Atlantic Watershed are:—

(a.) In the Hudson and James Bay Section: Dubaut and Baker; Wollaston, Deer, and Indian Lake; Rainy Lake, Lake of the Woods, Winnipeg, Winnipegosis, and Manitoba; Abitibi, Mistassini, and Clear Water.

(b.) In the Atlantic (Proper) Section: Caniapusaw and Meschickemau, Superior, Nipigon, Michigan, Huron, St. Clair, Erie, and Ontario.

(c.) In the Gulf of Mexico and Caribbean Section: Itasca, Leon, and Nicaragua.

(3.) The principal lakes of the Pacific Watershed are: Chapala, Okanagan, and Moose Lake.

(4.) The principal lakes of the continental drainage are:—

(a.) In the Great Basin, Sevier, Utah, and Great Salt Lake.

(b.) In the Plateau of Mexico, Parras and Texcoco.

**7. Animals.**—North America has numerous fur-bearing animals, such as the beaver, the marten, the squirrel, the racoon, the tree porcupine, and the otter; also the wolf, the fox, the white, the brown and the grizzly bear, the lynx, the puma, the buffalo, or, more correctly, the bison, the red-deer, the moose-deer, the rein-deer, the musk-ox; also the wild-horse, and the curious animal called the prairie-dog, of the prairies. Among the birds of North America may be named the turkey, the parrot, the eagle, the wild-duck, the wild-geese, and the humming-bird. Rattlesnakes, alligators, and turtles are numerous.

**8. Inhabitants.**—The aborigines or early inhabitants of North America include two races, the Eskimos and the Indians. The Indians in Mexico and Central America were formerly civilized, and had large towns and fixed governments.

## I. BRITISH NORTH AMERICA.

**1. Noted for.**—British North America is noted for its great extent; its numerous lakes and rivers; its mineral deposits; its fisheries; its great timber areas; its fertile soil; and its free monarchical institutions.

**2. Boundaries.**—British North America is bounded on the north by the Arctic Ocean; on the east by the Atlantic Ocean; on the south by the Atlantic Ocean and the United States; and on the west by the Pacific Ocean and Alaska.

**3. Area.**—The area of British North America is estimated at about 3,527,566 square miles, or equal to a square of 1881 miles.

**4. Population.**—The population is estimated at about 4,000,000.

**5. Physical Divisions.**—British North America is divided into three great natural regions: (a.) The Pacific highlands on the west; (b.) The northern slope of the great central plain in the centre; and (c.) The north-eastern slope on the east.

**6. Its Chief Mineral Regions are:** British Columbia and Nova Scotia, for gold; Nova Scotia, New Brunswick, the valley of the Saskatchewan River, and Vancouver Island, for coal; the Province of Quebec, the north shore of Lake Huron, and the north shore of Lake Superior, for copper; Ontario and Quebec, for iron and lead; and the north shore of Lake Superior for silver.

**7. The Political Divisions of British North America are the Dominion of Canada and the Province of Newfoundland.**

## DOMINION OF CANADA.

The name Canada, or Kanata, was a word used by the Algonquin Indians, when Jacques Cartier first visited the country, in describing the position of their village above Quebec. It is also, but erroneously, said to have been given by some Spanish explorers, who, having found no mines here, exclaimed "Aca nada!" Here is nothing.

**1. Noted For.**—The **Dominion of Canada** is chiefly noted for its great lakes; its noble rivers; its extensive lines of railways and canals; its good harbors and shipping; its oil springs and salt wells; its timber; its fisheries; and its mineral and agricultural products.

**2. Extent.**—The Dominion comprises the whole of British North America, except the Province of Newfoundland.

**3. Boundaries.**—It is bounded on the north by the Arctic Ocean; on the east by the Atlantic Ocean; on the south by the Atlantic Ocean and the United States; and on the west by the Pacific Ocean and Alaska.

**4. Dominion of Canada.**—The four Provinces of Ontario, Quebec, Nova Scotia, and New Brunswick were politically and commercially united in 1867. The North-West Territories were transferred to the Dominion in 1870, and in the same year a portion of the territories was organized as a Province, under the name of Manitoba. British

Columbia was admitted to the Dominion in 1871, and Prince Edward Island in 1873. The District of Keewatin was formed from the North-West Territories in 1876 by the Dominion Parliament.

**5. Government.**—The system of Government is monarchical, in its most popular form. Each Province in the Dominion has its own Lieutenant Governor, Local Legislature, and Executive or heads of departments. The Executive of the Dominion consists of a Governor General, who represents the Queen, and a Privy Council comprising the heads of departments of the Dominion Government, who are appointed by the Governor. By constitutional usage, the members of this Council must have seats in Parliament. The Legislature consists of three branches: 1. The Queen (represented by the Governor General); 2. The Senate; 3. The House of Commons. The three branches must give their assent to every bill before it can become law. The Governor General is the chief executive officer, and is also commander-in-chief of the militia. He assembles, prorogues, and dissolves Parliament, and assents to all bills not reserved for Her Majesty's pleasure. The Senate corresponds to the House of Lords in England, or to the Senate of Congress in the United States. It consists of 51 members; it may originate any bill not relating to the revenue, and may reject any bill passed by the House of Commons. The House of Commons in Canada corresponds to the House of Commons in England, and to the Congress House of Representatives in the United States. It consists of 206 members, elected by rate-payers in counties, cities, and towns. The House of Commons can originate any bill. It controls the revenue and expenditure of the Dominion.

## 6. DIVISIONS OF THE DOMINION OF CANADA, AND NEWFOUNDLAND.

| Name.                              | Area in English sq. miles. | Population (about). | Capital.      | Lat. N. | Long. W. | Where Situated.                         | Population of Capital (about). |
|------------------------------------|----------------------------|---------------------|---------------|---------|----------|-----------------------------------------|--------------------------------|
| Ontario                            | 220,000                    | 1,641,000           | Toronto       | 43°39'  | 79°23'   | Lake Ontario                            | 75,000                         |
| Quebec                             | 210,000                    | 1,102,000           | Quebec        | 46.49   | 71.13    | River St. Lawrence                      | 65,000                         |
| New Brunswick                      | 27,322                     | 286,000             | Fredericton   | 46.3    | 66.45    | River St. John                          | 7,000                          |
| Nova Scotia                        | 21,731                     | 388,000             | Halifax       | 44.30   | 63.36    | Halifax Harbor                          | 35,000                         |
| Prince Edward Island               | 2,173                      | 94,000              | Charlottetown | 46.15   | 63.7     | Near Hillsborough Bay                   | 10,000                         |
| Newfoundland                       | 40,200                     | 159,000             | St. John's    | 47.33   | 52.43    | Peninsula of Avalon, S. E. of Island    | 30,000                         |
| Labrador                           | 112,000                    | 2,400               |               |         |          |                                         |                                |
| Manitoba                           | 14,140                     | 46,600              | Winnipeg      | 46.55   | 97.0     | Conf. of Assiniboine with Red River     | 8,000                          |
| British Columbia                   | 315,000                    | 65,500              | Victoria      | 48.28   | 123.30   | South-east end of Vancouver Island      | 6,000                          |
| North-West and N.-East Territories | 2,200,000                  | 35,500              | Battleford    | 52.42   | 100.0    | Conf. of Battle R. with N. Saskatchewan | 150                            |
| Keewatin                           | 365,000                    | 4,600               |               |         |          |                                         |                                |



CITY OF OTTAWA.

## PROVINCE OF ONTARIO.

Area 220,000 square miles, or equal to a square of 469 miles.

**1. Noted For.**—The Province of Ontario is noted for its great lakes, the Niagara Falls, and for its fisheries, minerals, petroleum springs, fine climate, and fertile soil.

**2. Boundaries.**—Ontario is bounded on the north by Keewatin, the River Albany, and James Bay; on the east and north-east by the North-East Territory and the River Ottawa; on the south-east, south, and south-west by the River St. Lawrence, Lakes Erie, Ontario, St. Clair, Huron, and Superior, and the United States; and on the west by Keewatin.

**3. Physical Features.**—The surface is gently undulating, rather than mountainous, and is diversified by rivers and lakes. The ridge of high land which enters the Province at the Falls of Niagara extends to Hamilton, and is continued to Owen Sound, thence along the peninsula to Cabot Head and through the Manitoulin Islands, Lake Huron. The Laurentian Hills run westward from the Thousand Islands, near Kingston, and extend north of Lake Simcoe, forming the coast of Georgian Bay and Lake Huron. The water-partings of the Province are not, in general, sharp ridges, but rather level, and often marshy surfaces, on which the streams interlock. A main water-shed separates the waters of the Ottawa from those of the St. Lawrence; a minor one divides the streams flowing into Lake Simcoe, Georgian Bay, and Lake Huron from those flowing into Lakes Erie and Ontario.



RAILWAY AND PASSENGER SUSPENSION-BRIDGE OVER THE NIAGARA RIVER.



FALLS OF NIAGARA.

**4. The Principal Rivers** are the tributaries of the *Ottawa*; the *Kaministiquia* and the *Nipigon* emptying into Lake Superior; the *Salon*, *Mississaga*, *Serpent*, *Spanish*, and *White Fish* River into the North Channel of Lake Huron; the *French*, *Magalloway*, *Severn*, and *Nottawasaga* into the Georgian Bay; the *Sangen*, *Maitland*, and *Aux Sables* into Lake Huron; the *Thames* into Lake St. Clair; the *Grand* into Lake Erie, through the County of Haldimand; the *Trent* and *Mohr* into the Bay of Quinté; and the *Niagara* into Lake Ontario. The Boundary Rivers between the Province of Ontario and the United States are the *Rainy*, *Pigeon*, *St. Clair*, *Detroit*, *Niagara*, and *St. Lawrence*; and between the Province of Ontario and Quebec, the *Ottawa*. The *Niagara* is 34 miles long, and connects Lakes Erie and Ontario. The Falls, which occur 20 miles from its head and 14 from its mouth, are the most celebrated in the world. There are two suspension bridges over the river, viz.: a passenger bridge at Clifton, near the Falls, and a railway and passenger bridge at Elgin.

The *Ottawa* rises 100 miles above Lake Temiscamingue, and flows to the foot of the Island of Montreal, a distance of 450 miles. It drains an area of 8,000 square miles. The chief tributaries on the Ontario Province side are the *Peterson*, the *Bonnechere*, the *Madawaska*, and the *Rideau*. On the Quebec Province side they are the *De Meuse*, the *Black*, the *Coulogne*, the *Gatineau*, *Du Lièvre*, the *Rouge*, *Du Nord*, and *L'Assomption*. The lake expansions of the river are *Coulogne*, *Des Châts*, *Chaudière*, and *Tao Mountains*. There are numerous rapids and falls in the river. The chief rapids are the *Allumettes*, *Des Châts*, and *Chaudière*. The scenery on the river is striking and beautiful. The *Ottawa* falls into the St. Lawrence by a three-fold branch. The main stream, to the north, is divided by the *Isle Jésus*; its southern branch by *Isle Perrot*. Between the *Isles Perrot* and *Montreal* are the *Rapids of Ste. Anne*, to which Moore refers in his "Canadian Boat Song."

**5. The Principal Islands** in the Province of Ontario are *Grand Cataraugus* and *Allumette*, *Ottawa* River; *Michipicoten* and *Carleton* in Lake Superior; *Manitoulin*, *Cochran*, and *St. Joseph* in Lake Huron; *Point Pelee* and *Rye* in Lake Erie; *Ankerst* and *Wolfe*, at the east end of Lake Ontario; and some of the *Thousand Islands*, in the upper part of the River St. Lawrence.

**6. The Principal Lakes.**—The magnificent lakes which form the southern and western boundaries of the Province, viz.: *Superior*, *Huron*, *St. Clair*, *Erie*, and *Ontario*.

The *Minor Lakes* are *Nipissing*, *Simcoe*, and those in the Counties north of Lake Ontario, and in the *Ottawa* and *St. Lawrence* rivers.



CITY OF TORONTO.

7. **The Principal Bays** are Thunder, Black, Georgian, Nottawasaga, Burlington (at Hamilton), and Quinté (north of Prince Edward County). The North Channel is between the Manitoulin Islands and the north shore of Lake Huron.

8. **The Climate.**—Ontario, from its extent of country, has a variable climate. Generally speaking the winters are not so cold as those of the Province of Quebec, and the summer heat is tempered by the winds which blow two-thirds of the season from the west and along the great lakes.

9. **The Chief Products** include various kinds of grain, timber, minerals, etc. These form the chief articles of export.

10. **The Inhabitants.**—Ontario was chiefly settled by emigrants from the British Isles, and by descendants of the United Empire Loyalists, whose object was to maintain the unity of the British Empire.

11. **Education.**—Ontario possesses abundant facilities for education, in the Public and High Schools, Collegiate Institutes, Colleges, and Universities. There are also in the cities and towns many excellent private Academies, Seminaries, and Schools.

12. **The Local Government** consists of a Lieutenant Governor, an Executive Council of six members, and a House of Assembly of eighty-eight members.

13. **Divisions.**—Ontario is divided into forty-two Counties (including a provisional county) and five outlying Districts, which, with their chief cities or towns, are as follows:

(a.) **Five Counties on Georgian Bay and Lake Huron.**

Simcoe, Barrie, Collingwood, Orillia.  
Grey, Owen Sound, Durham, Meaford.

Bruce, Walkerton, Kincardine.  
Huron, Goderich, Clinton, Seaforth.  
Lambton, Sarnia, Petrolia.

(b.) **Six Counties on Lake Erie.**

Essex, Sandwich, Windsor, Amherstburg.  
Kent, Chatham, Bothwell.  
Elgin, St. Thomas, Port Stanley.

Norfolk, Simcoe, Port Dover.  
Haldimand, Cayuga, Caledonia, Dunnville.  
Welland, Welland, Clifton, Thorold.

(c.) **Twelve Counties on Lake Ontario.**

Lincoln, St. Catharines, Niagara.  
Wentworth, Hamilton, Dundas.  
Halton, Milton, Oakville, Georgetown.  
Peel, Brampton, Streetsville.  
York, Toronto, Newmarket, Aurora.  
Ontario, Whitby, Oshawa, Uxbridge.  
Durham, Port Hope, Bowmanville, Newcastle.

Northumberland, Cobourg, Brighton, Colborne.  
Prince Edward, Picton.  
Hastings, Belleville, Trenton, Stirling.  
Lennox and Addington, Napanee, Bath, Newburg.  
Frontenac, Kingston, Portsmouth.

(d.) **Five Counties on the St. Lawrence.**

Leeds, Brockville, Gananoque.  
Grenville, Prescott, Merrickville.  
Dundas, Morrisburg, Iroquois.

Stormont, Cornwall.  
Glengarry, Alexandria.

(e.) **Five Counties on the Ottawa.**

Prescott, L'Orignal, Hawkesbury.  
Russell, Russell.  
Carleton, Ottawa, New Edinburgh.

Lanark, Perth, Smith's Falls, Carleton Place.  
Renfrew, Pembroke, Renfrew, Arnprior.

(f.) **Eight Interior Counties.**

Middlesex, London, Strathroy, Lucan.  
Oxford, Woodstock, Ingersoll, Tilsonburg.  
Brant, Brantford, Paris.  
Perth, Stratford, St. Mary's, Mitchell.

Waterloo, Berlin, Galt, Waterloo.  
Wellington, Guelph, Orangeville.  
Victoria, Lindsay, Omemee.  
Peterborough, Peterborough, Ashburnham, Lakefield.

**Provisional County:** Haliburton, Minden.

**United Counties:**

1. Stormont, Dundas, and Glengarry.
2. Leeds and Grenville.
3. Northumberland and Durham.
4. Prescott and Russell.

*Note.*—Counties are printed in black letter, County Towns in italics, and Chief Towns in County in Roman Letters.

**Districts:**

Muskoka, Bracebridge.  
Parry Sound, Parry Sound.  
Nipissing, Matawan.

Aigoma, Sault Ste. Marie.  
Thunder Bay, Prince Arthur's Landing.

**The Cities are:**

Ottawa, the capital of the Dominion of Canada.

Toronto, the capital of the Province of Ontario.

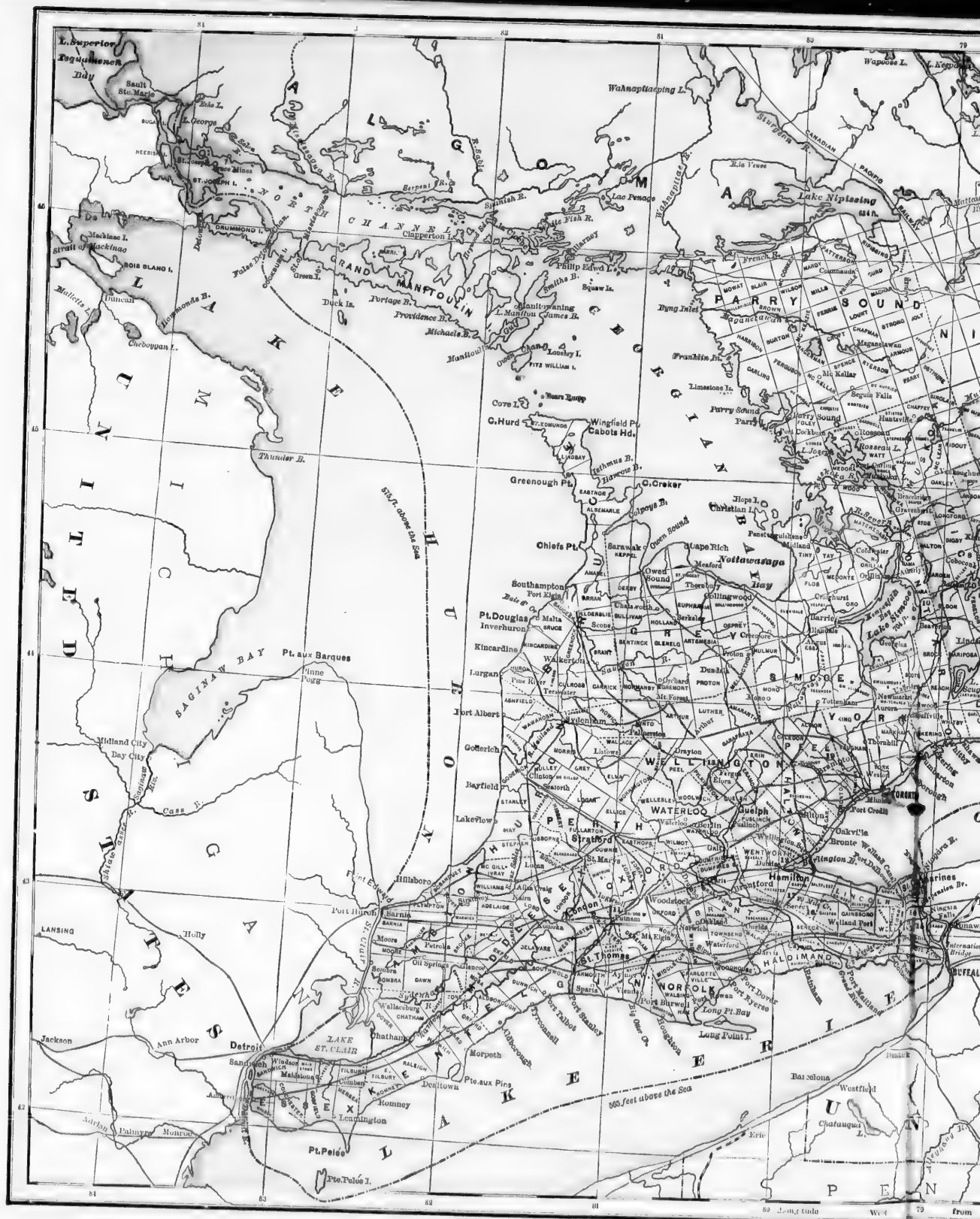
Hamilton, St. Catharines, Brantford, London, and Guelph, *Westward*; and

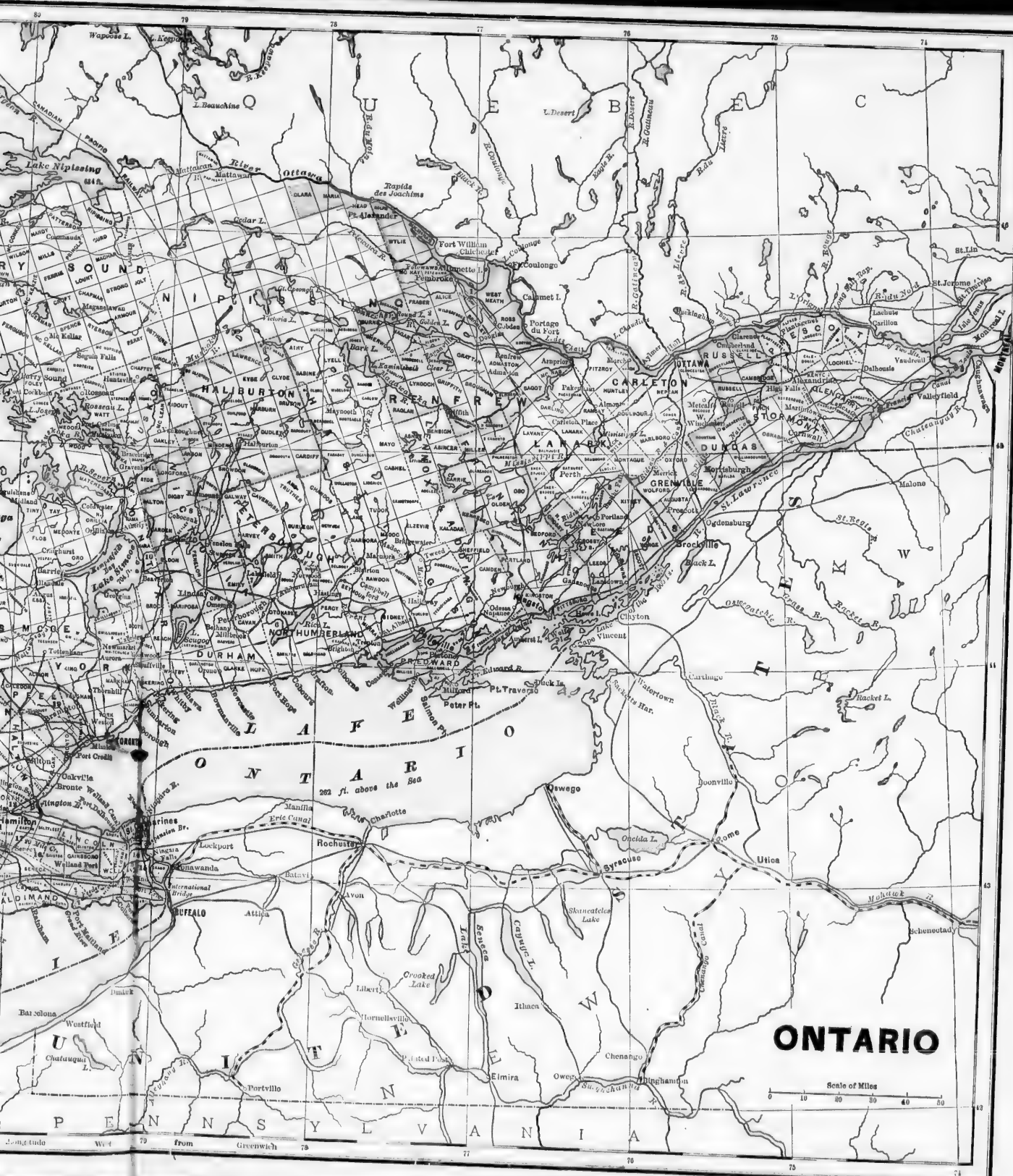
Kingston and Belleville, *Eastward* of Toronto.

Ottawa (26,000) is situated on a high bank of the River Ottawa, near the Chaudière Falls, and is noted for being the greatest lumber emporium in the Dominion. In 1857 it was selected by the Queen as the seat of Government of Canada. Since the Confederation of the various Provinces it has become the seat of the Government of the Dominion of Canada. Ottawa contains the Parliament Houses, the Public Departments, the highest Courts of Justice, the official residence of His Excellency the Governor General, and a Provincial Normal School. The city is bisected by the Rideau River and Canal, by which it has communication with the St. Lawrence and Ottawa Rivers. It has also railway communication with the Grand Trunk Railway, and with Montreal and Quebec, *via* the north shore of the River Ottawa.

Toronto (75,000), formerly called York, the seat of the Local Government of the Province of Ontario, was founded by Governor Simcoe in 1794. It is delightfully situated, near the head of Lake Ontario, on the north side of an elliptical basin, formed by a long, low, sandy island, stretching from the land east of the city to Gibraltar Point, abreast of the old fort. The neighboring country is fertile, and is thickly settled by an industrious population. The city contains the Parliament Buildings and principal Government offices, the Law Courts, the Education Depart-





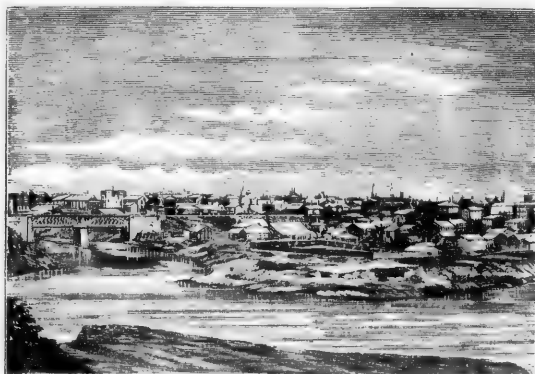


ment, two Universities, three Colleges, the Normal School, Public and High Schools, a large number of excellent private Academies, Seminaries, and Schools, and a Provincial Lunatic Asylum. It is an important station on the Grand Trunk Railway, which connects Detroit, in Michigan, with Portland, in Maine, and Sarnia with South Quebec, nearly opposite the City of Quebec. Five other lines of railway enter the city. In Summer, steamers arrive daily from Montreal, Hamilton, Niagara, and Rochester. Its trade is extensive, and manufactures are carried on to a great extent. Toronto and Quebec were, from 1849 to 1859, alternately the seats of Government of Canada.



CITY OF HAMILTON.

**Hamilton** (30,000) is situated on Burlington Bay, at the south-west angle of Lake Ontario. This safe and capacious bay is highly valuable as a harbor for steamers and other craft sailing on the Lake. Hamilton is built on a plateau of slightly elevated ground, winding around the foot of a hilly range, which extends from Niagara Falls. It is an important commercial and manufacturing city, and contains a College for Females, excellent schools, and a Provincial Lunatic Asylum. Hamilton is the chief station of the Great Western Railway, which extends from the Niagara Suspension Bridge to Windsor, opposite Detroit, and to Sarnia, opposite Port Huron.



CITY OF LONDON.

**London** (20,000), on the River Thames, is surrounded on all sides by a rich agricultural country, and is the chief western commercial depot of the Province. It contains three Colleges, several Academies and Schools, a Provincial Lunatic Asylum, a number of manufactories, mills, machine shops, and foundries. Four different railways pass through the city.

**St. Catharines** (12,000), on the Welland Canal, which connects Lake Ontario with Lake Erie, and is noted for its mineral springs and its attractiveness as a summer resort.

**Brantford** (11,000), on the Grand River, tributary to Lake Erie, is noted for its manufacture of steam engines, mill machinery, agricultural implements, and stoneware. It is the seat of the Provincial Institution for the Education of the Blind, and of a Ladies' College.

**Belleville** (11,000), at the mouth of the River Maitland, which flows into the Bay of Quinté. It is a secure harbor for vessels. The scenery is interesting, owing to the windings and indentations of the opposite shore of Prince Edward Peninsula. It has a good lumber trade, and several manufacturing establishments. It contains a University and College and the Provincial Institution for the Education of the Deaf and Dumb.



CITY OF GUELPH.

**Guelph** (10,000) on the River Speed, which has a fall here of about thirty feet, furnishing water-power to several large flour mills, woollen and other factories, and sewing machine and melodeon establishments. There are several beds of dolomite, yielding excellent building and lime stone, in the neighborhood. Guelph is the northern terminus of the Galt and Guelph branch of the Great Western Railway, and the southern terminus of the Wellington, Grey, and Bruce Railway, and is a chief station of the Grand Trunk Railway. The Provincial School of Agriculture is situated near the city.



CITY OF KINGSTON.

**Kingston** (15,000), formerly called Cataragui and Frontenac, on the north bank of Lake Ontario, at the head of the River St. Lawrence. Next to Quebec and Halifax it is the strongest military post in Canada, and is the main entrepot of trade between the Provinces of Quebec and Ontario. The harbor is convenient and well sheltered, and is the chief naval depot on Lake Ontario. The River St. Lawrence, as it issues from the Lake, is twelve miles wide, and is divided into two channels by Wolfe, Grand, and Long Islands. It is the seat of a University, and a Roman Catholic College. It contains also a Provincial Penitentiary, and a Military College.

**Owen Sound** (4,600), originally called Sydenham, on Georgian Bay, at the outlet of the River Sydenham, has the best harbor on Lake Huron. It contains manufactories of machinery, agricultural implements, and leather and woollen goods.

**Collingwood** (4,500), on Nottawasaga Bay, has a large lumber and grain trade, and is the starting-point of steamers for the upper lake ports.

**Goderich** (4,600), on Lake Huron, has a good harbor, protected by a pier with a lighthouse at the mouth of the Maitland River, and is the only shipping port for many miles on the lake. It is noted for its salt wells, which are a considerable source of wealth.

**Clinton** (2,500), on the Buffalo branch of the Grand Trunk Railway, 13 miles from Goderich, has grain trade and salt wells.

**Warkenton** (2,500), on the Saugeen River, possesses extensive water power and has a large lumber trade.

**Seaford** (2,000), 21 miles south-east of Goderich, is an important market town, has an iron foundry and woollen mills, and the most extensive salt wells known on the continent.

**Sarnia** (4,500), on the River St. Clair, near Lake Huron, is a safe port at which steamers and vessels, bound to the upper lakes, can call.

**Windsor** (6,000), on the Detroit River, is the western terminus of the Great Western Railway. It has tobacco and broom factories.

**Port Stanley** (750), **Port Dover** (800), and **Port Colborne** are shipping ports on Lake Erie. **Simcoe** (3000), on the River Lynn, has several manufactories of machinery, potash, leather and woollen goods.

**Welland** (3200), on the Welland Canal and River, possesses good water power, and has woollen factories and saw mills.

**Elora** (1600), at the confluence of the Irvine with the Grand River, 14 miles from Guelph, amidst very beautiful scenery. It manufactures carpets and other woollen goods, and agricultural implements, and has a good Geological museum.

**Galt** (5500), on the Grand River, manufactures axes, paper, lasts, and woollen goods.

**Waterloo** (4000), on the Grand River, has a large grain and produce trade.

**Dundas** (3500), near Hamilton, is noted for the manufacture of iron machinery, edge tools, paper, and cotton and woollen goods.

**Stratford** (9000), on the River Avon, which supplies the town with good water-power for the various manufactories. It has a large trade in grain and produce.

**Woodstock** (5500), on the River Thames, is the centre of a good agricultural section, and has a considerable trade. The Baptist denomination has a Collegiate Institute here.

**Ingersoll** (5300), on the River Thames, 19 miles from London, is noted for its cheese factories. It has a large trade in lumber and grain.

**St. Thomas** (8000), on Kettle Creek, is the head office of the Canada Southern Railway, which has its car shops here, employing 500 people.

**Chatham** (6000), on the River Thames, has a very considerable export trade in grain, pork, and lumber.



OIL WELLS.

**Petrolia** (3500), on the Sydenham River, and a branch of the Great Western Railway, 50 miles south-west of London, is noted for its petroleum wells and refineries.

**Brampton** (4000), on the Grand Trunk Railway, is an important grain and flour market.

**Barrie** (4800), beautifully situated on Kempenfeldt Bay, an arm of Lake Simcoe, has a woollen factory and several flour mills. It carries on a large lumber trade.

**Whitby** (3750), on the north shore of Lake Ontario, has one of the best harbors on the lake.

**Port Hope** (5500), on the north shore of Lake Ontario, has a good harbor with important inland railway communications, as well as to the east and west, and a large lumber and grain trade.

**Peterborough** (7500), on the Otonabee River, has a large export trade in grain, pork, and lumber.

**Lindsay** (5500), on the River Scugog, has an extensive trade in lumber and grain.

**Cobourg** (4500), on the north shore of Lake Ontario, is the market town of a very fertile section of the country, and a safe and commodious harbor from which considerable quantities of farm produce, lumber, and iron ore are exported. It contains a University and College.

**Pictou** (3000), on the Bay of Quinté, Lake Ontario, has several manufactories of machinery and steam engines.

**Napanee** (3200), on the Napanee River, is a port of entry, and has several paper and saw mills.

**Perth** (3000), on the River Tay, which is navigable to the Rideau Canal. In its vicinity are large deposits of plumbago and phosphate of lime.

**Brockville** (8000), a picturesque town at the foot of the Lake of the Thousand Isles, on the north shore of the River St. Lawrence, is a port of call for all steamers plying between Montreal and the ports on Lake Ontario.

**Prescott** (3000), on the north shore of the River St. Lawrence and directly opposite the City of Ogdensburg, in the State of New York, between which there is a steam ferry. A few miles below Prescott the rapids of the St. Lawrence commence.

**Morrisburg** (2040), on the north shore of the River St. Lawrence, at the foot of the Rivière du Plat Canal, possesses excellent water power.

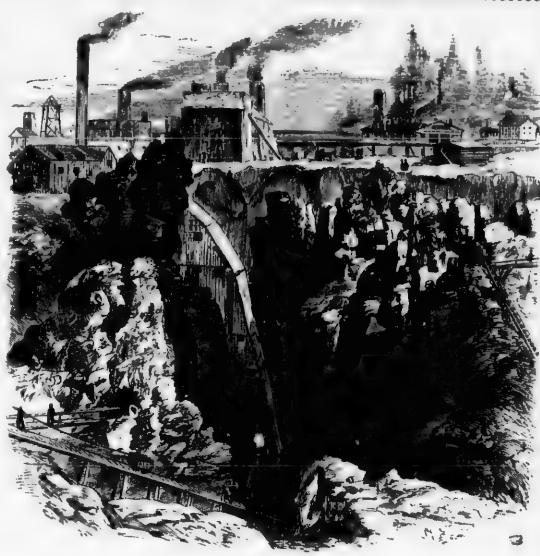
**Cornwall** (4500), on the north shore of the River St. Lawrence, and at the mouth of the Cornwall Canal, which affords to the town excellent water privileges which are utilized by a large cotton mill and woollen factory.

**Pembroke** (1600), on Allumette Lake, an expansion of the River Ottawa, and also on the Muskrat River (a tributary to the Ottawa), which runs through the centre of the town, and gives water power to its different mills and factories.

**Gracébride** (1500) is the business centre of the free-grant land district of Muskoka.

**Bruce Mines**, on the north shore of Lake Huron, is noted for its copper mines.

**Sault Ste. Marie** (500), on St. Mary's River (through which Lake Superior flows into Lake Huron), a rapid current forming a bar to navigation and separating the Province of Ontario from the State of Michigan. Navigable communication is obtained by a canal about a mile long.



COPPER MINING.

**Prince Arthur's Landing** (1500), on Thunder Bay, at the head of Lake Superior, is a flourishing place in a rich mining region.

**Fort William**, near the mouth of the Kaministiquia River, is the eastern terminus of the Canadian Pacific Railway.

## PROVINCE OF QUEBEC.

Area, 310,000 square miles, or equal to a square of 458 miles.

1. **Noted For.**—The Province of Quebec is noted for the exploring enterprise of its founders; for its commercial importance, fisheries, lumbering, shipbuilding, mineral wealth, beautiful scenery, and noble rivers.

2. **Boundaries.**—It is bounded on the north by the North-East Territory and Labrador; on the east by the Gulf of St. Lawrence; on the south by the Bay Chaleur, New Brunswick, and the States of Maine, New Hampshire, Vermont, and New York; and on the south-west and west by the Province of Ontario.

3. **Physical Features.**—(a.) Though not a mountainous country, the scenery of the Province is more picturesque than that of Ontario. Its rivers and mountain ridges are also on a grander scale. Fogs frequently prevail in autumn on its navigable waters. The Lower St. Lawrence is enclosed by two mountain ranges, viz.: the Appalachian, on the south-east, running along the peninsula of Gaspé (there known as the Notre Dame Mountains), and extending to Alabama; and the Laurentian, on the north, running from the Gulf of St. Lawrence to Cape Tourment, near the city of Quebec, and thence extending into the interior of the continent north-west of Lake Superior.

(b.) **The Principal Lakes** are *Asturgamcook*, *Papimongage*, *Mistassini*, *St. John*, *Edouard*, *Matavin*, *Graves*, *Grand*, *St. Francis*, *Megantic*, *Memphremagog*, and *Temiscouata*; also the lake expansions of the River St. Lawrence, and the lake sources of the St. Maurice and Saguenay Rivers.

(c.) **The Principal Rivers** are the *St. Lawrence*, the *Saguenay*, the *St. Maurice*, the *Ottawa* and its tributaries in part, the *Richelieu*, the *St. Francis*, and the *Chaudière*.

(d.) **The Principal Bays** along the coast are *Chaleur* (in part), *Malbaie*, *Gaspé*, and *Mille Vaches*.

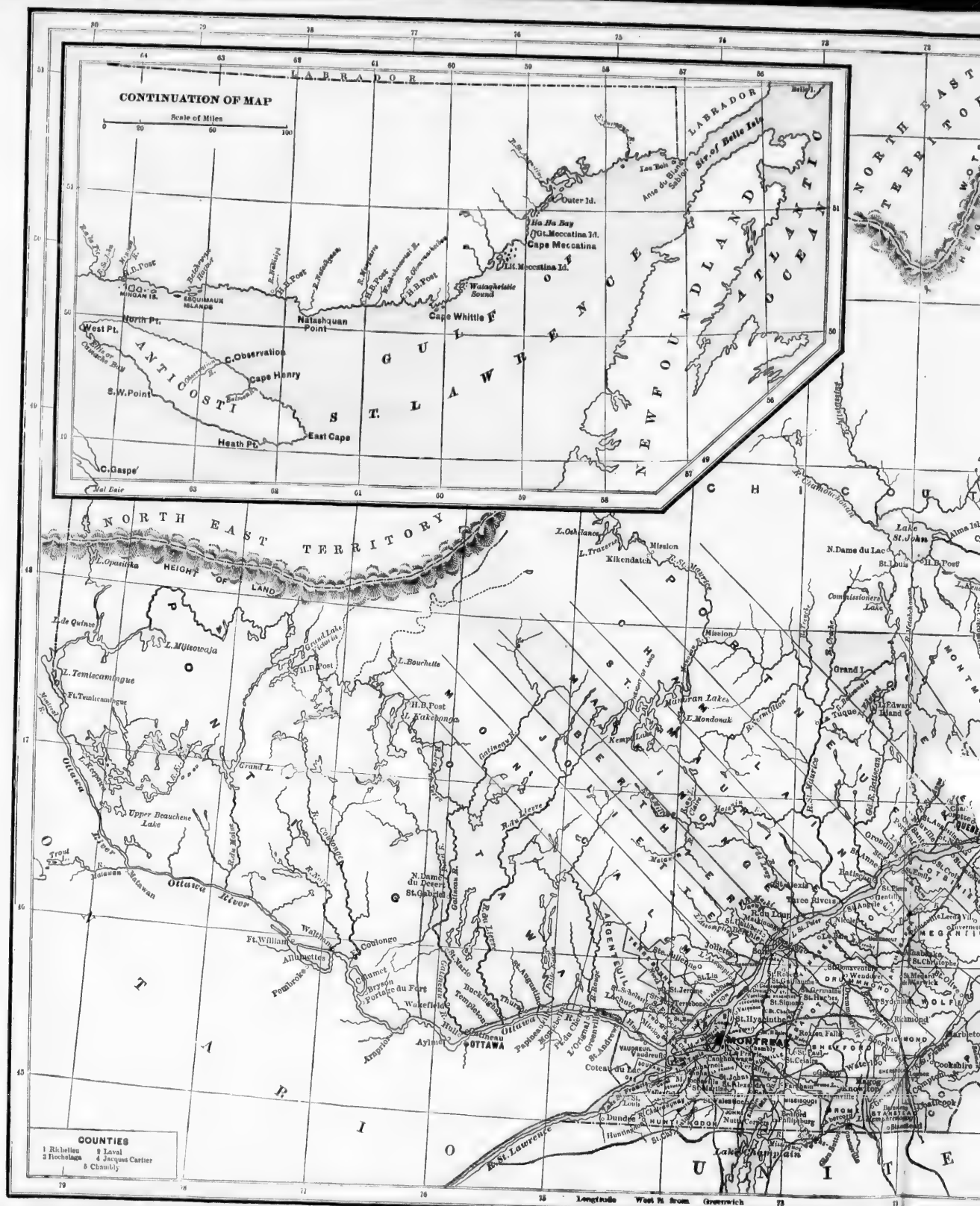
(e.) **The Principal Islands** are *Anticosti*, the *Magdalen*, and *Bonaventure*, in the Gulf of St. Lawrence; *Bic*, *Verte*, *Aux Coudres*, *Orleans*, and *Montreal*, in the River St. Lawrence; *Allumette*, *Calumet*, *Perrot*, and *Jésus*, in the Ottawa.

The *Island of Orleans* is 20 miles long by 6 wide. It is fertile and well wooded.

The *Island of Anticosti*, 400 miles below Quebec, and an important fishing station, is 135 miles long by 36 wide. It has several lighthouses and depots to aid shipwrecked mariners.

The *Magdalen Islands*, in the Gulf of St. Lawrence, 100 miles west-south-west of Newfoundland, and 54 miles north-west of Cape Breton. There are several good harbors in the islands. A large trade, in summer, is done in dried fish and oils.









THE SAGUENAY RIVER.

at Three Rivers, so called from its three-fold mouth. Including its windings, it is nearly 400 miles in length. It has many tributaries, and drains an area of 21,000 square miles. In its course it expands into numerous lakes. Besides the great Falls of Shawanegan (160 feet in height), it has a number of minor falls and cascades.

The *Richelieu* issues from Lake Champlain, and flows northward 75 miles to the River St. Lawrence. Champlain ascended the Richelieu in 1609, and discovered the lake since named after him.



GRAND METIS FALLS, ON METIS RIVER, TRIBUTARY OF THE ST. LAWRENCE.

(f.) The *Gaspé Peninsula* is 175 miles in length, from Cape Gaspé to the head of Lake Metapédia, and is about 90 miles wide. Its coast line is 400 miles. The population is about 25,000.

(g.) The River St. Lawrence is described on page 21.

The *Saguenay*, which flows through Lake St. John, is 400 miles long, and falls into the St. Lawrence at Tadoussac. It has thirty tributaries, and drains a triangular area of 27,000 square miles. It is very deep, and its banks are very precipitous. It is navigable for 75 miles, as far as Chicoutimi, above which the rapids are numerous.

The *St. Maurice* rises in Lake Oskelanaia, and falls into the St. Lawrence

The *St. Francis* issues from Lake St. Francis, in the County of Beauce, flows south-westerly as far as Lennoxville, and thence north-westerly to the St. Lawrence, which it enters at Lake St. Peter. Length about 220 miles.

The *Chaudière* issues from Lake Mégantic, and flows northerly to the St. Lawrence, which it enters a few miles above Quebec. Length about 150 miles.

4. The *Climate* is different from that of Ontario, being much colder in winter, and not so warm in summer. Spring bursts forth in great beauty, and vegetation is rapid. The atmosphere is clear and bracing.

5. The *Chief Products* include various kinds of grain, timber, furs, minerals, etc. The iron, lead, and copper mines are highly productive. There are extensive fisheries in the Gulf of St. Lawrence; and the River Saguenay is noted for its fine salmon.

6. The *Inhabitants*.—The first settlers in the Province of Quebec were chiefly from the central parts of France; but in the Eastern Townships the inhabitants are mostly of British origin, including descendants of United-Empire Loyalists and American settlers. The greater portion of the present population are of French origin.

7. *Education* is widely diffused. There are three Universities, viz.: McGill, at Montreal; Laval, at Quebec, and Bishop's College, at Lennoxville. Common schools, classical and commercial colleges, academies, and private schools are numerous.

8. The *Local Government* consists of a Lieutenant Governor, with an Executive Council of seven members, a Legislative Council of twenty-four members, and a Legislative Assembly of sixty-five members.

9. The Province of Quebec is divided into sixty Counties which, with their chief places, are as follows:

(a.) *Nine Counties on the Ottawa.*

Pontiac, *Bryson*, Portage du Fort.

Ottawa, *Aylmer*, Hull.

Argenteuil, *Lachute*, St. Andrews.

Two Mountains, *St. Scholastique*, St. Eustache.

Vaudreuil, *Vaudreuil*.

Soulanges, *Coteau Landing*.

Jacques Cartier, *Lachine*, Point Claire.

Hochelega, *Longue Point*, Montreal.

Laval, *St. Rose*, St. Vincent de Paul.

(b.) *Fourteen Counties north of the St. Lawrence.*

Terrebonne, *St. Jerome*, Terrebonne.

L'Assomption, *L'Assomption*.

Montcalm, *St. Julie*.

Joliette, *Joliette*.

Berthier, *Berthier*.

Maskinongé, *Rivière du Loup*.

St. Maurice, *Three Rivers*.

Champlain, *Batiscan*, St. Anne.

Portneuf, *Cap Saint*.

Quebec, *Charlesbourg*, Quebec.

Montmorency, *Chateau Richer*.

Charlevoix, *St. Paul's Bay*.

Chicoutimi, *Chicoutimi*.

Saguenay, *Tadoussac*.

(c.) *Twenty-six Counties south of the St. Lawrence.*

Huntingdon, *Huntingdon*, Durham.

Beauharnois, *Beauharnois*, Valleyfield.

Chateauguay, *St. Martine*, Chateauguay.

LaPrairie, *LaPrairie*, Caughnawaga.

Napierville, *Napierville*, St. Remi.

St. Johns, *St. Johns*.

Chambly, *Chambly*, Longueuil.

Verchères, *Verchères*.

Richelieu, *Sorel*, St. Ours.

Yamaska, *St. François*.

St. Hyacinthe, *St. Hyacinthe*.

Bagot, *St. Hughes*.

Rouville, *St. Marie*.

Iberville, *St. Athanasie*.

Nicolet, *Becancour*.

Lotbinière, *Lotbinière*.

Lévis, *Point Lévis*.

Dorchester, *St. Hindine*.

Bellechasse, *St. Michel*.

Montmagny, *St. Thomas*.

L'Islet, *St. Jean Port Joli*.

Kamouraska, *Kamouraska*.

Temiscouata, *Ile Verte*.

Rimouski, *Rimouski*.

Bonaventure, *New Carlisle*.

Gaspé, *Perth*.

(d.) *Eleven Counties south of the St. Lawrence, usually called Eastern Townships.*

Arthabasca, *St. Christophe*.

Mégantic, *Leeds Village*.

Beauce, *St. François*.

Drummond, *Drummondville*.

Richmond, *Richmond*.

Wolfe, *South Ham*.

Shefford, *Waterloo*.

Sherbrooke, *City of Sherbrooke*.

Compton, *Cookshire*.

Missisquoi, *Frelighsburg*.

Brome, *Knoxville*.

Stanstead, *Stanstead Plain*, Coaticook.

Note.—Counties are printed in black letters, County Towns in *italics*, and Chief Towns in County in Roman letters.



CITY OF QUEBEC.

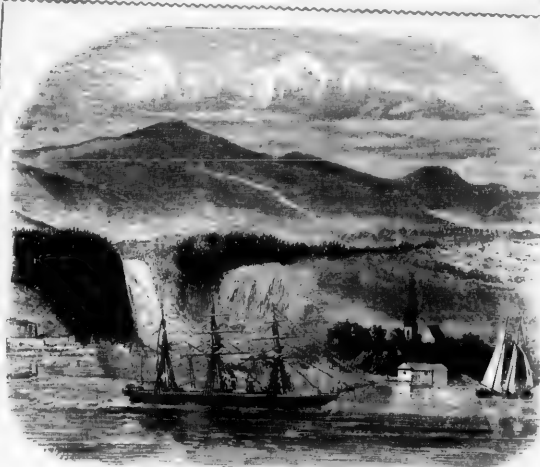
*The Cities are:*

**Quebec**, the capital of the Province of Quebec.

**Montreal**, the commercial metropolis of the Dominion.

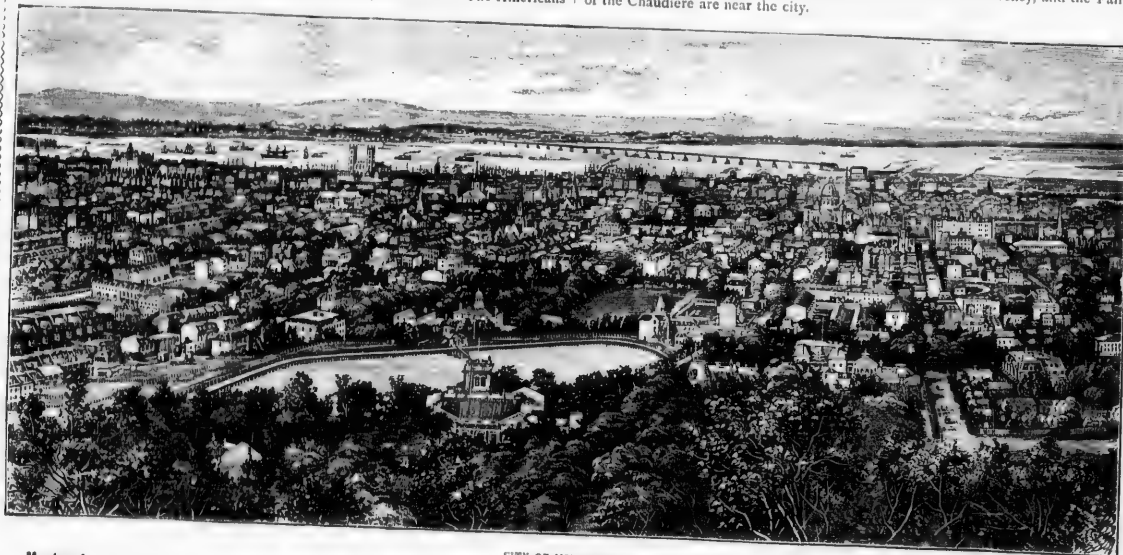
**Hull, St. Hyacinthe, Sherbrooke, and Three Rivers.**

**10. Chief Places.**—The **City of Quebec** (65,000) is the oldest city in Canada. It was founded in 1608, by Champlain, near the site of the Indian village of Stadacona. In 1629, it was taken by Sir David Kerr, but restored to France in 1632. In 1660, it was unsuccessfully besieged by Sir William Phipps. It was finally captured by Wolfe, in 1759, after an heroic defence by Montcalm. The Americans



ALLAN MAIL STEAMER LEAVING QUEBEC.

attacked it in 1775; but they were repulsed, and their general, Montgomery, slain. The citadel, with its fortifications, is considered impregnable, and is called the Gibraltar of America. It covers an area of 40 acres, and crowns the summit of Cape Diamond, which is 350 feet above the level of the river. The city is divided into Upper Town and Lower Town. Upper Town includes the citadel, and adjoins the Plains of Abraham; Lower Town is the place of commerce. About 1500 vessels clear annually from the port. It is noted for shipbuilding and for its lumber trade. It contains the French Basilica (1646), the Ursuline Convent, the Parliament Buildings, the Laval University, Morrin College, and a Normal School. The ancient Huron Indian village of Lorette, the Falls of Montmorency, and the Falls of the Chaudière are near the city.



CITY OF MONTREAL.

**Montreal** (160,000) was founded in 1642, under the name of Ville Marie, near the site of the Indian village of Hochelaga. Its name was afterwards changed to Mont Royal, or Montreal. It is at the head of ocean navigation, and is 180 miles long and 10 wide, which is formed by a branch of the Ottawa river on the North, and the River St. Lawrence on the South. It is the chief commercial city in the Dominion of Canada. The harbor is about two miles long, extending from the Lachine Canal to the adjacent village of Hochelaga; its wharves are unrivalled in America. The freight cars of the Grand Trunk Railway are brought by rail alongside the shipping and contiguous to the manufactories which line the banks of the

Lachine Canal. The city is flanked by Mount Royal, whose summit is 750 feet above the level of the River St. Lawrence; the upper plateaus consist of a public park and the Protestant and Roman Catholic Cemeteries. The public buildings are built of limestone, and are of an imposing character. Montreal is the chief emporium of the grain trade in Canada, and it has a great exportation of flour, cereals, and cattle. It is connected with the city of Quebec by railway on both shores of the river, and with the cities of Ottawa, Kingston, Toronto and Hamilton by river, lake, canal and rail. Between Montreal and the chief cities and towns on the shores of the St. Lawrence and Lake Ontario there is a daily steamboat communication.





VICTORIA RAILWAY TUBULAR BRIDGE—NEARLY TWO MILES LONG. ERECTED AT A COST OF \$6,300,000.

This Bridge crosses the St. Lawrence River from Montreal to St. Lambert. It was formally opened, by H. R. H. The Prince of Wales, in August, 1860. It is of iron on the tubular principle, consisting of 24 tubes, each 242 feet in length, and one central tube 330 feet in length,—the floor of which is at an elevation of 60 feet above the current,—these rest on limestone piers, which are wedge-shaped at the water level, to resist the pressure of the ice in the winter and spring. At each entrance there are two very massive stone abutments, 224 feet long, forming approaches to the bridge. ROBERT STEPHENSON and A. M. ROSS, Engineers; JAMES HODGES, Builder.

**City of Hull** (7000), on the Ottawa River, two miles from Ottawa, is largely engaged in the manufacture of lumber, and has an extensive match, pail, and woodenware factory. A suspension bridge, spanning the Chaudière Falls, connects it with Ottawa, and it is connected by railway with the city of Montreal. It was first settled in 1800.

**Aylmer** (3000), on the River Ottawa, about eight miles from the capital, has several large lumbering establishments.

**St. Andrews** (1000), in the county of Argenteuil, on the North River, near its junction with the Ottawa River, contains several mills and factories.

**L'Assomption** (5000), on a river bearing the same name, is 24 miles north of Montreal. It has a Roman Catholic College.

**Joliette** (4000), on the River L'Assomption, contains grist, saw, carding, and fulling mills, and does an extensive trade in grain and country produce. It has a Roman Catholic College.

**St. Cuthbert** (3300), in the county of Berthier, district of Richelieu. A river bearing the same name runs through the parish, and affords good water-power for manufactories.

**Valleyfield** (2000), at the head of the Beauharnois Canal, possesses extensive water-power and large paper, woollen, grist, and saw mills.

**St. Johns** (4000), on the River Richelieu, 27 miles south-east of Montreal, with which it is connected by four lines of railway, has manufactories of iron castings, leather, and earthenware, also grist and planing mills, and brickfields.

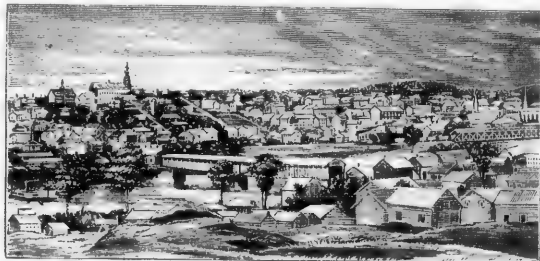
**St. Denis** (2700), on the River Richelieu, about 14 miles from St. Hilaire, contains saw, grist, and carding mills.

**Sorel** (7500), near the mouth of the River Richelieu, where it debouches into Lake St. Peter, has several manufactories of engines, machinery, and agricultural implements. Ship-building is largely carried on. The Montreal and Quebec Mail Steamers call here.

**City of St. Hyacinthe** (7000), on the Yamaska River, is connected with Montreal, Quebec, and Portland, U. S., by the Grand Trunk Railway. It has a Roman Catholic College and a Cathedral.

**Waterloo** (2200), in the county of Shefford, Eastern Townships, has several manufactories and mills. Copper and iron ores are found in the vicinity.

**Coaticook** (3100), near the boundary line, on the Grand Trunk Railway, has extensive manufactories of sashes, doors, blinds, and carriages, and saw and grist mills.



CITY OF SHERBROOKE.

**City of Sherbrooke** (6000), on the River St. Francis and the River Magog, has an abundance of water-power for manufacturing purposes, and its mills and factories are extensive. It is the seat of the District Courts, and is connected with Montreal, Quebec, and Portland, U. S., by three lines of railway.

**Lennoxville** (1200), near Sherbrooke, is the seat of Bishop's College, a Church of England Institution, with a staff of professors, having a Royal charter for conferring degrees in Arts and Medicine.

**Richmond** (1400), on the St. Francis River, is a station on the Grand Trunk Railway between Montreal and Portland, U. S. In its vicinity are some copper mines.

**Nicolet** (2000), about 80 miles north-north-east of Montreal, has a college with a library of over 10,000 volumes.



CITY OF THREE RIVERS.

**City of Three Rivers** (10,300), at the threefold mouth of the River St. Maurice, is connected with Montreal and Quebec city by the Grand Trunk Railway, and by the Quebec, Montreal, Ottawa and Occidental Railway; and in summer by the Montreal and Quebec Mail Steamers. It has a college, an academy, and several schools, and is noted for its iron works and lumber trade.

**Inverness** (2500), in the county of Megantic, contains grist, saw, carding, and fulling mills.

**Lotbinière** (2300), on the south shore of the River St. Lawrence, about 47 miles from Quebec, contains foundries, and saw and grist mills.

**South Quebec** (3000) is contiguous to the town of Lévis, opposite the city of Quebec. It is the terminus of the Grand Trunk Railway on the south shore of the River St. Lawrence.

**Lévis** (10,000), on the south shore of the River St. Lawrence, opposite the city of Quebec, is one of the termini of the Grand Trunk Railway, and the landing place of passengers arriving by the Ocean steamships from Europe. Its heights are strongly fortified, and its forts command the harbor of Quebec.

**Lorette** (4000), on the River St. Charles, eight miles from Quebec. About sixty families of Huron Indians live here and manufacture snow shoes, moccasins, and fancy work. It is the seat of the Quebec Water Works.

**Murray Bay** (3500), or Malbaie, a favorite summer watering place on the River St. Lawrence, north shore, about 90 miles below Quebec. There is communication by steamboat from Quebec four days in the week, during the summer months.

**St. Anne de la Pocatière** (3000), in the county of Kamouraska, a station on the Intercolonial Railway, about 80 miles below Quebec. It has a Roman Catholic College.

**Kamouraska** (1000), on the south side of the St. Lawrence, 90 miles below Quebec city, is much frequented for its sea bathing.

**Rimouski** (2800), on the south side of the St. Lawrence, has a large shipping and lumber trade, and is the summer port for the embarkation and disembarkation of the English mails and the passengers by the Allan steamships.



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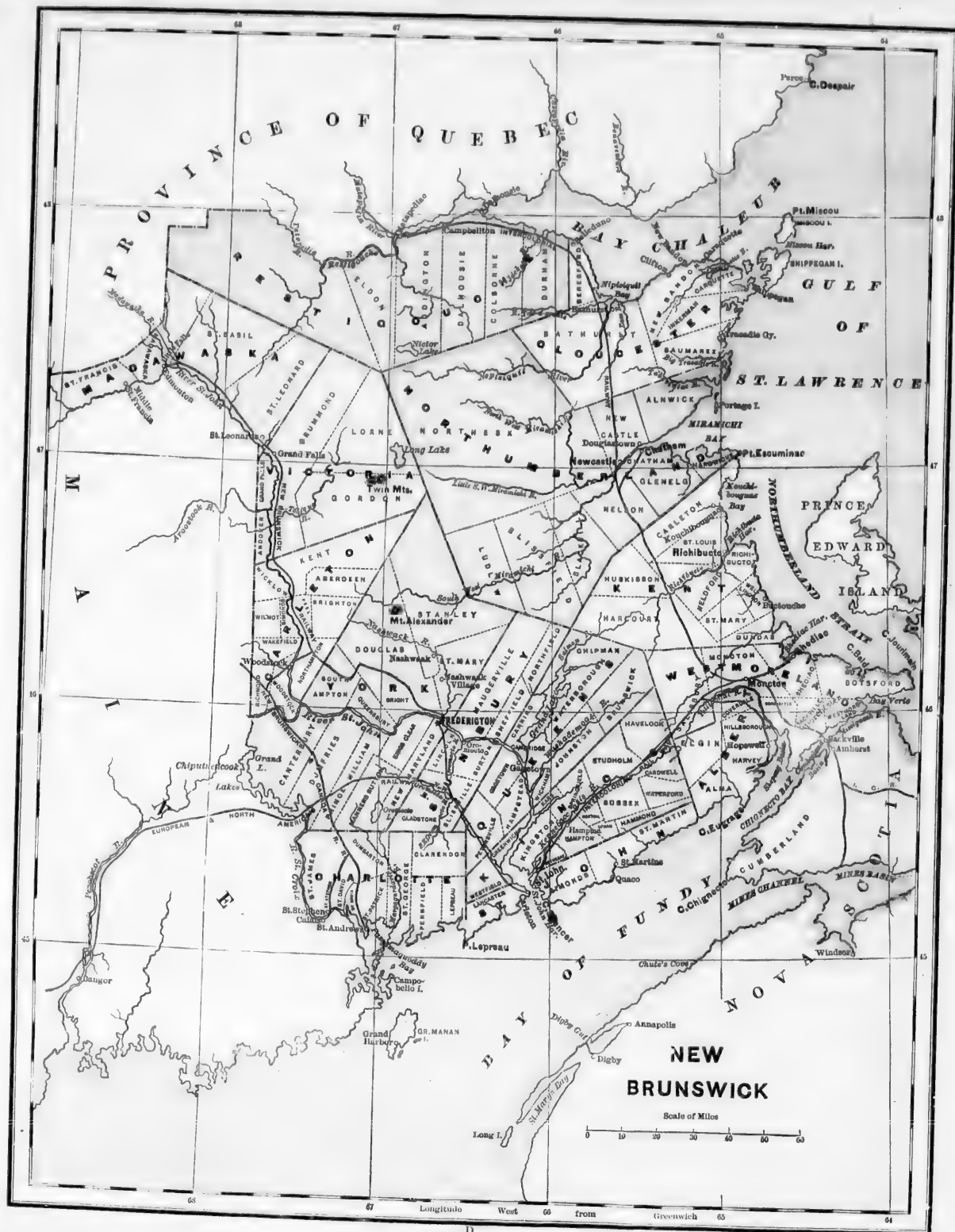
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## PROVINCE OF NEW BRUNSWICK.

So called from the German seat of the Royal House of Brunswick in Europe. Area 27,322 square miles, or equal to a square of 165 miles.



CITY OF FREDERICTON, THE CAPITAL OF NEW BRUNSWICK.

1. **Noted For.**—New Brunswick is noted for its numerous rivers, fine timber, shipbuilding, mines, and fisheries.

2. **Position and Boundaries.**—This Province (in shape an irregular square) lies south of the Gaspé Peninsula, and is bounded on the north by the Bay of Chaleur and the Province of Quebec; on the east by the Gulf of St. Lawrence and Northumberland Strait; on the south by Nova Scotia and the Bay of Fundy; and on the west by the State of Maine and the Province of Quebec.

3. **Physical Features.**—(a.) The surface of New Brunswick is agreeably diversified by hill and dale, mountain and valley, picturesque lakes and noble rivers. Its forests are well wooded, and the soil along the rivers and in the valleys is rich and fertile. The fine bays are well adapted for commerce.

(b.) **The Principal Rivers** are the *St. John*, with its branches, the *Nashveak*, *Salmon*, and *Wahademoak*; and the *Ste. Croix*, *Restigouche*, *Miramichi*, *Richibucto*, and *Petitcodiac*.



GRAND FALLS, ON THE ST. JOHN RIVER.

The *St. John*, 450 miles long, from its rise in the highlands which separate the Province of Quebec from that of New Brunswick, and the State of Maine, to the Bay of Fundy, is known for the first 150 miles of its course by the Indian name *Wallooshtook* or Long River. The Grand Falls, which are 80 feet high and very picturesque, are situated half-way down the river, near the north-east corner of the State of Maine; from thence the river flows for 60 miles in a southerly direction to Woodstock, and there takes an easterly course to the outlet of Grand Lake, and from that point flows almost due south to the Bay of Fundy. The *St. John* runs through, in some places, dense forests of pine, of which vast quantities are annually rafted downwards. It is navigable for vessels of 120 tons burden as far as Fredericton, from whence small steamers ply to Woodstock.

The *Ste. Croix* or *Scotic* forms the boundary between New Brunswick and the State of Maine, and falls into Passamaquoddy Bay.

The *Restigouche* is 200 miles long, and expands into the Bay of Chaleur. It is a boundary river between the Provinces of New Brunswick and Quebec. *Restigouche* means finger and thumb, the branches of the river being spread out like a hand.

The *Miramichi* is 225 miles long, and nine miles wide at its mouth. It is navigable for 30 miles inland.

The *Petitcodiac* falls into Chignecto Bay.

(c.) **The Principal Lakes** are *Grand Lake* in Queen's County, and *Grand Lake* (source of the *Ste. Croix* River) between Maine and New Brunswick.

(d.) **The Principal Bays** are *Chaleur*, *Miramichi*, *Verte*, *Chignecto*, *Fundy*, and *Passamaquoddy*.

The *Bay of Chaleur* is 90 miles long, and from 15 to 30 miles wide. It has neither shoal, reef, nor other impediment to navigation. The bay is celebrated for the variety and abundance of its fish.

(e.) **The Principal Capes** are *Miscou Point*, *Escuminac*, and *Tormentine* on the east; and *Spencer* and *Lepreau* on the south.

(f.) **The Principal Islands** are *Miscou* and *Shippegan*, at the north-east; *Grand Manan*, in Fundy Bay; and *Campobella*, in Passamaquoddy Bay.

4. **The Climate**, though subject to the usual extremes of heat and cold, is less severe than that of Quebec, and is very healthy. Fogs come from the Bay of Fundy, but rarely extend any distance inland. Autumn is generally a beautiful season.

5. **The Chief Products** are agricultural; but coal, iron, copper, asphalt, lead, granite, marble, and other valuable minerals are abundant in various parts of the Province. The rivers, lakes, and sea-coast abound with fish; and lobsters and oysters are caught in large numbers.

6. **Inhabitants.**—The Province was chiefly settled by the French in 1639, subsequently by emigrants from Scotland in 1764, and afterwards by American United-Empire Loyalists\* and by emigrants from Europe.

7. **Education.**—Besides a university, there is a Madras Institution, with branch schools, and several academies and grammar schools; also numerous elementary schools, and a Normal School, supported by the Legislature.

8. **Divisions.**—The fifteen counties in New Brunswick, and their chief places, are as follows:

### (a.) Five Counties on the Eastern Coast.

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| <i>Restigouche</i> , <i>Dalhousie</i> .    | <i>Kent</i> , <i>Richibucto</i> .         |
| <i>Gloucester</i> , <i>Bathurst</i> .      | <i>Westmoreland</i> , <i>Dorchester</i> . |
| <i>Northumberland</i> , <i>Newcastle</i> . |                                           |

### (b.) Three Counties on the Bay of Fundy.

|                                     |                                         |
|-------------------------------------|-----------------------------------------|
| <i>Albert</i> , <i>Hopewell</i> .   | <i>Charlotte</i> , <i>St. Andrews</i> . |
| <i>St. John</i> , <i>St. John</i> . |                                         |

### (c.) Four Counties in the Interior.

|                                    |                                    |
|------------------------------------|------------------------------------|
| <i>Kings</i> , <i>Hampton</i> .    | <i>Sunbury</i> , <i>Oromocto</i> . |
| <i>Queen's</i> , <i>Gagetown</i> . | <i>York</i> , <i>Fredericton</i> . |

### (d.) Three Counties in the West.

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| <i>Carleton</i> , <i>Woodstock</i> .   | <i>Madawaska</i> , <i>Little Falls</i> . |
| <i>Victoria</i> , <i>Grand Falls</i> . |                                          |

9. **Chief Places.**—*Fredericton* (7000), the capital, is beautifully situated 84 miles up the River *St. John*, and is well laid out. It is the seat of government for the Province, also the seat of the University of New Brunswick. The Supreme Court of the Province is also held here.



CITY OF ST. JOHN, THE CHIEF COMMERCIAL PORT OF NEW BRUNSWICK.

*St. John* (35,000), the chief commercial city of New Brunswick, is situated on a fine bay at the mouth of the River *St. John*. It is well built, and has an imposing appearance when approached from the water. The principal buildings, besides the churches, are the marine hospital, the barracks, court house, prison, lunatic asylum, academy of music, almshouse, and penitentiary. A handsome suspension bridge, 640 feet in length, spans the river. It is a monument of mechanical skill. The harbor is capacious, and free from ice in winter. The entrance is protected by a battery on Partridge Island. The tide in the harbor rises from 21 to 25 feet. *St. John* is famed for shipbuilding. Its chief exports are lumber, lime, and grindstones.

\* Noble and gallant Loyalists, who pledged "their lives, their fortunes, and their sacred honor," to maintain, as a United Empire, England and her Colonies in America, during the American Revolution (1776-83).

**Chatham** (7000), on the Miramichi River. Shipbuilding and the manufacture of lumber are its chief industries. In September, 1879, 59 vessels cleared from this port with 26,978,000 feet of deals.

**Newcastle** (2000), on the Miramichi river. Fishing, lumbering and shipbuilding are its chief trade.

**Moncton** (6000), at the head of Petitcodiac River, possesses manufactories of iron castings, steam engines and machinery, and the Locomotive works of the Intercolonial Railway.

**Richibucto and Shediac**, on Northumberland Strait. The trade of these towns is in lumber and fish.

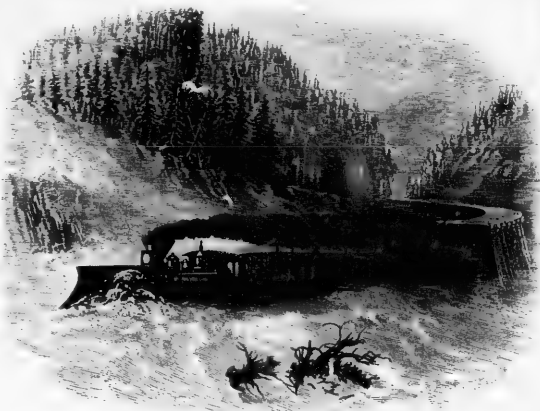
**St. Stephen** (1500), on the Ste. Croix, and **St. Andrews** (2000), on Passamaquoddy Bay, trade with the United States, in lumber and fish.

**Sackville** (2000), a town, at the head of Cumberland Basin, is the seat of Mount Allison College.

**Woodstock** (3500), on the River St. John, is the seat of extensive lumbering operations; and is noted for its apples and plums.

**10. The Government** consists of a Lieutenant Governor, an Executive Council of nine members, a Legislative Council of sixteen members, and a Legislative Assembly of forty-one members.

**11. Commerce.**—The fine rivers and bays, and the extent of sea coast give the Province of New Brunswick great commercial facilities. There are about one thousand vessels, large and small, engaged in trade, fishing, etc. The exports are timber, ships, grain, fish, iron, coal, lime, and gypsum.



SNOW PLOUGH ON THE INTERCOLONIAL RAILWAY.

**12. Railways** connect the principal towns. The Intercolonial Railway, connecting the various Provinces, passes through this Province, and joins the Grand Trunk Railway at South Quebec, opposite the city of Quebec.

**13. Indians.**—When Europeans first visited New Brunswick, three Algonquin tribes, or nations, occupied Acadie, including Nova Scotia, New Brunswick, and Maine, viz.: the Micmacs, or Souriquois, from Gaspé Bay to the River Ste. Croix; the Etchemins, or Malicites (Canoe-men), from the Ste. Croix to the Penobscot; and the Abenakis, or Kannabises, from the Penobscot to the Kennebec. These nations afterwards became more closely united, and were known to the French under the name of Les Nations Abenakis. The Etchemins and the Abenakis have a few small settlements on the St. John. They are now known as Malicites. Their number does not exceed twelve hundred.



LUMBERMEN AT WORK.

PROVINCE OF NOVA SCOTIA.

So called by the first settlers, who originally came from Scotland and Brittany, Breton being the name of an inhabitant of Bretagne or Brittany, in France. Area, 21,731 square miles, or equal to a square of 147 miles.



CITY OF HALIFAX.

**1. Noted For.**—Nova Scotia is noted for its coal, iron, gold, and other minerals; and also for its fisheries, shipbuilding, lumbering, manufactures, and its extensive line of sea coast.

**2. Position and Extent.**—The Province includes the Peninsula of Nova Scotia and the Island of Cape Breton. It is separated from New Brunswick by the Isthmus of Chignecto and the Bay of Fundy, and from Prince Edward Island by Northumberland Strait, and lies to the south-east of them.

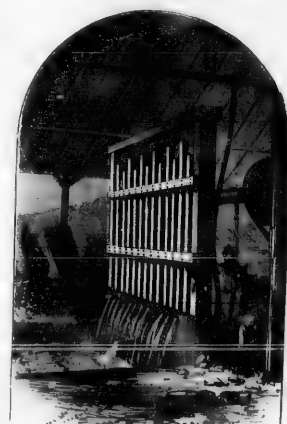
**3. Physical Features.**—(a.) The Peninsula of Nova Scotia is somewhat triangular in shape, and is connected with New Brunswick by a short isthmus 16 miles in width. Its surface is undulating and picturesque, and is dotted over with many small, beautiful lakes. In the interior are several ranges of hills, of which the Cobequid are the most important. On the coast, the capes, bays, and harbors are numerous. No part of Nova Scotia is more than thirty miles from the sea. A belt of rugged rocks, averaging 400 feet in height and from 20 to 60 miles in width, extends along the Atlantic coast from Cape Canso to Cape Sable, and along the Bay of Fundy coast. The Island of Cape Breton is nearly severed in two by an inlet of the sea called Bras d'Or Lake and by St. Peter's Bay. The island is rich in minerals, well wooded, and fertile. The surface is undulating, and the scenery generally beautiful.

(b.) **The Principal Capes** of Nova Scotia are *St. George's*, on the north coast; *Canso*, *Sambro*, *Sable*, on the south-east coast; and *Chignecto*, on the west coast. In Cape Breton they are *St. Lawrence*, *North*, *Egmont*, *Enfumeé*, and *Breton*.

(c.) **Bays.**—Nova Scotia is noted for its numerous bays. The principal on the Northern coast are *St. George's*; on the eastern, *Chedabucto*; on the southern, *Halifax*, *Margaret's*, and *Mahone*; on the western, *St. Mary's*, *Fundy*, *Minas* (channel and basin), *Chignecto*, and *Verte*. In Cape Breton the chief are *Aspy*, *St. Ann's*, *Bras d'Or* (inlet), *Sydney*, *Miré*, *Gabarus*, and *St. Peter's*. The Bay of Fundy separates Nova Scotia from New Brunswick; Cumberland Peninsula divides it into *Chignecto Bay* and *Minas Channel*. The Bay of Fundy is an arm of the sea, extending 200 miles inland from the Atlantic to the head of Cobequid Bay, and is from 30 to 60 miles wide. It is remarkable for its high rapid tides and fogs; its coast is bold and rocky. The rivers *St. John*, *St. Croix*, and *Annapolis*, flow into it.



IN THE COAL MINE.



CRUSHING GOLD-BRAINING QUARTZ.



(d.) **Straits.**—*Northumberland Strait* separates Nova Scotia from Prince Edward Island, and *Canso Strait*, 15 miles in length, and about a mile in breadth, separates Nova Scotia from Cape Breton.

(e.) **The Rivers** in Nova Scotia are short.

(f.) **The Principal Lakes** are the *Rossignol* in Nova Scotia, and the *Margaret* in Cape Breton. *Bras d'Or*, in Cape Breton, is a large inlet from the sea, with two passages, one navigable for large ships.

(g.) **The Principal Islands** of Nova Scotia are *Sable*, *Seal*, *Long*, and *Pictou*. Near Cape Breton are *Boularderie*, *Scatary*, and *Malame*. *Sable Island*, 87 miles south-east of Cape Canso, is 25 miles long and from one to two wide. It is noted for its sandy and dangerous coast.

4. **Climate.**—Nova Scotia being within the influence of the Gulf Stream, and nearly surrounded with water, its climate is less liable to extremes of heat and cold than that of the neighboring Provinces. The autumn is an agreeable season of the year.

5. **Products.**—The Province is rich in coal, iron, gold, and gypsum. In Nova Scotia and in Cape Breton there are extensive coal-fields. The agricultural productions of Nova Scotia are abundant. At the head of the Bay of Fundy, the alluvial deposits thrown up by the high tides and enclosed by dykes make the soil very productive. The fisheries of the Bay of Fundy and the Gulf of St. Lawrence are valuable; cod, haddock, mackerel and herring being the principal.

6. **Railways, Canal, etc.**—The Intercolonial Railway runs from Halifax to New Brunswick, with a branch line from Truro to Pictou. Another line runs from Halifax to Windsor, and thence to Annapolis. The Shubenacadie Canal connects Halifax with Cobequid Bay. The electric telegraph connects every county with Halifax, and Halifax with the other Provinces and the United States.

7. **Manufactures** in domestic articles and shipbuilding are successfully carried on.

8. **Commerce** is greatly promoted by 1200 miles of sea coast, and about fifty ports of entry.

9. **Inhabitants.**—The Province was originally settled by English and Irish, near Halifax; by Scotch in the Eastern Counties; by American United-Empire Loyalists in the Western and Midland Counties; by Germans and Swiss in Lunenburg County, and by French in other parts.

10. **Education.**—There are six Colleges, a Normal and a Model School, and numerous public schools and academies.

11. **Civil Divisions.**—There are fourteen counties in Nova Scotia Peninsula, and four in Cape Breton, which, with their county towns, are as follows:

(a.) **Six Counties on the Atlantic Coast.**

|                                  |                              |
|----------------------------------|------------------------------|
| Guysborough, <i>Guysborough.</i> | Queen's, <i>Liverpool.</i>   |
| Halifax, <i>Halifax.</i>         | Shelburne, <i>Shelburne.</i> |
| Lunenburg, <i>Lunenburg.</i>     | Yarmouth, <i>Yarmouth.</i>   |

(b.) **Four Counties on Fundy Bay.**

|                              |                           |
|------------------------------|---------------------------|
| Digby, <i>Digby.</i>         | King's, <i>Kentville.</i> |
| Annapolis, <i>Annapolis.</i> | Hants, <i>Windsor.</i>    |

(c.) **Four Counties on Northumberland Strait.**

|                             |                                |
|-----------------------------|--------------------------------|
| Cumberland, <i>Amherst.</i> | Pictou, <i>Pictou.</i>         |
| Colchester, <i>Truro.</i>   | Antigonish, <i>Antigonish.</i> |

(d.) **Four Counties in Cape Breton.**

|                              |                             |
|------------------------------|-----------------------------|
| Inverness, <i>Port Hood.</i> | Cape Breton, <i>Sydney.</i> |
| Victoria, <i>Baddeck.</i>    | Richmond, <i>Arichat.</i>   |

12. **Chief Places.**—

**Halifax** (35,000), the capital of Nova Scotia, was founded in 1749, by Governor Cornwallis, and named after the Earl of Halifax, the active promoter of the settlement. The original name was Chebucto. The harbor is the finest in America, and rarely freezes in winter. Halifax is well protected by the citadel, which crowns the summit of the hill, on the declivity of which the city is pleasantly situated. The Province building and other public edifices are plain but substantial structures. There are several good churches and two colleges, viz.: Dal-

housie and St. Mary's. Halifax is the chief station for the Royal Navy in British North America, and an important packet station. Its dockyard covers fourteen acres. It carries on an extensive trade with Great Britain and the West Indies.

**Lunenburg** (3000), on the Atlantic coast, south of Halifax, stands on a peninsula, and presents a fine appearance from the water. It is extensively engaged in fishing, and has a large trade with the West Indies.

**Liverpool** (2000), and **Shelburne** (1000), also on the Atlantic coast, are engaged in shipbuilding and fishing.

**Yarmouth** (4200), on the south-west coast, owns a large amount of shipping, and is extensively engaged in shipbuilding and in the carrying trade. It is noted for its public schools.

**Annapolis** (600), at the mouth of the River Annapolis, on a fine inlet of the Bay of Fundy, is an ancient settlement, and was founded by the French in 1605 and named Port Royal. It was four times captured; but was finally ceded to Great Britain in 1713, when its name was changed to Annapolis, after Queen Anne.

**Windsor** (3300), beautifully situated on the Avon estuary, is a seaport, and a place of commercial importance, in consequence of coal, gypsum, limestone, and other valuable minerals in its vicinity. It has the oldest University in British North America.

**Truro** (2800), near the head of Cobequid Bay, is a station on the Intercolonial Railway. It contains a Normal School, a Model School, and manufactories of steam engines, machinery, and iron castings.

**Londonderry.**—A seaport on the north side of Cobequid bay, and the seat of the Acadian Charcoal Iron works.

**Amherst** (2200), on Cumberland Bay, is a seaport, with a large trade, especially in lumber and shipbuilding.

**Spring Hill Coal Mines**, celebrated for its extensive coal beds.



TOWN OF PICTOU.

**Pictou** (3500), a seaport on Northumberland Strait, is the centre of the great coal mining district of the Province. Its harbor is good, and its shipbuilding, commercial facilities and trade are extensive. It has extensive quarries of building stone.

**New Glasgow** (3000), near Pictou Harbor, is a seaport, and noted for its shipbuilding, and large exportation of coal. Extensive coal mines are worked in the vicinity.

**Antigonish** (1200), east of New Glasgow, is the seat of St. Francis Xavier College.

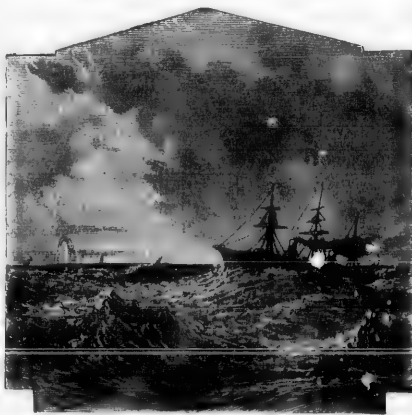


TOWN OF SYDNEY.

**Sydney** (3000), formerly the capital of Cape Breton, on the east side of the island, is an important seaport, at the head of an excellent and secure harbor, with a safe entrance. The famous Sydney Coal Mines are within three miles of the town.

**Arichat** (1200), on Isle Madame, has a harbor capable of sheltering the largest vessels. It has important fishery establishments, and a lead mine.

13. **The Constitution** is founded upon Treaties, Orders in Council, Royal Instructions, and Imperial and Colonial Acts. Nova Scotia, then called Acadie, was settled by the French, under De Monts, in 1604; ceded to England in 1713; colonized in 1748-9; a Constitution was granted in 1758, which was modified when Cape Breton was taken by England in 1758. Responsible Government was introduced in 1848; and the public statutes were revised and consolidated in 1851. The Province was confederated as one of the four provinces of Canada in 1867. The local government is vested in a Lieutenant Governor, and an Executive Council of nine members. The Legislative Council consists of eighteen members, and the House of Assembly of thirty-eight members.



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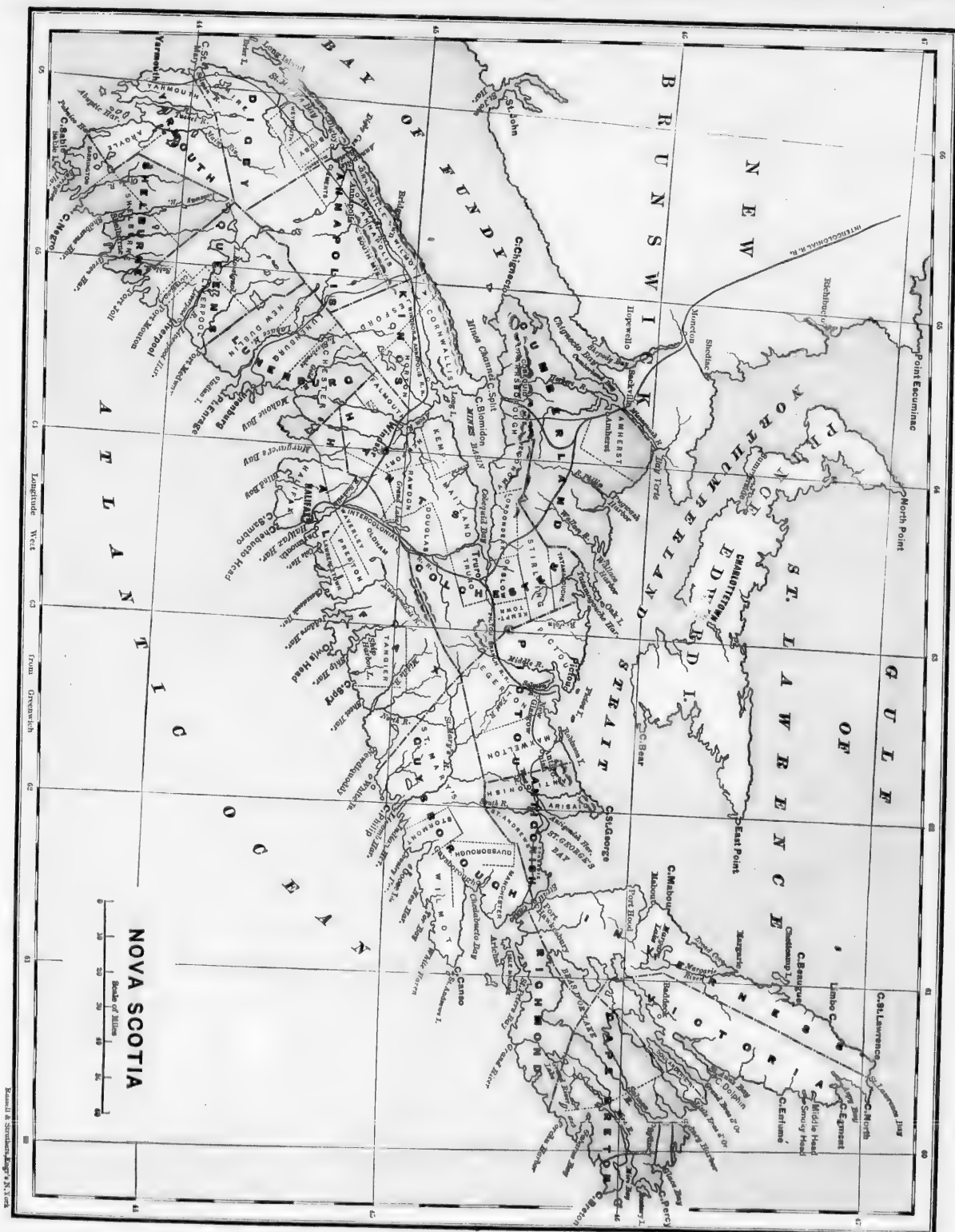
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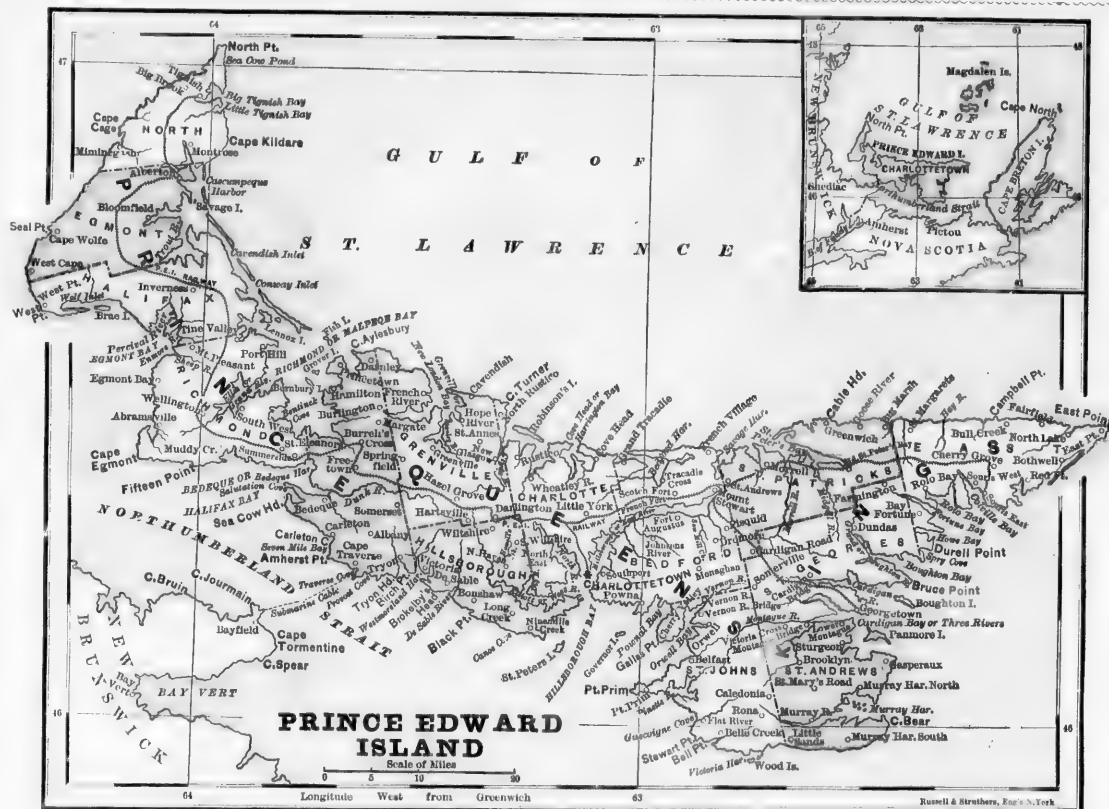
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## PROVINCE OF PRINCE EDWARD ISLAND.

So called from Prince Edward, Duke of Kent, Queen Victoria's father. Size, about equal to a square of 46 miles.



CHARLOTTETOWN, THE CAPITAL OF PRINCE EDWARD ISLAND.

**1. Noted For.**—Prince Edward Island is noted for its shipbuilding, fisheries, fertility, and salubrious climate.

**2. Position and Extent.**—This crescent-shaped island, 130 miles long by about 34 wide, occupies the south portion of the Gulf of St. Lawrence. It is 30 miles from Cape Breton, 15 from Nova Scotia, and 9 from New Brunswick, and is separated from the mainland by Northumberland Strait.

**3. Physical Features.**—The surface is slightly undulating. A chain of hills extends nearly west of Richmond Bay, but in no place do they reach a high elevation.

The land is very level. The indentations along the coast are numerous, the chief of them being Hillsborough and Richmond Bays, which penetrate the island from opposite directions, and divide it into three separate peninsulas.

**4. Products.**—The soil is free from rock, easy of tillage, and very productive. Agriculture is the chief occupation of the inhabitants.

**5. The Climate** is remarkably healthy, and milder than that of the adjoining continent. The air is dry and bracing. Fogs are rare; winter, though cold, is agreeable, and summer, owing to the insular character of the country, is tempered by the sea breezes.

**6. The Inhabitants** consist of descendants of Scottish, Irish, Acadian, French, and English settlers.

**7. Education.**—There are about 300 free elementary schools, a Normal and a Model School, Prince of Wales College, and various private schools.

**8. Government.**—The Government is administered by a Lieutenant Governor, an Executive Council of nine members, a Legislative Council of thirteen members, and a Legislative Assembly of twenty-nine members. The Province was admitted into the Dominion of Canada in 1873.

**9. The Counties** are King's, Queen's, and Prince's, divided into sixty-seven townships (numbered from 1 to 67), and three royalties.

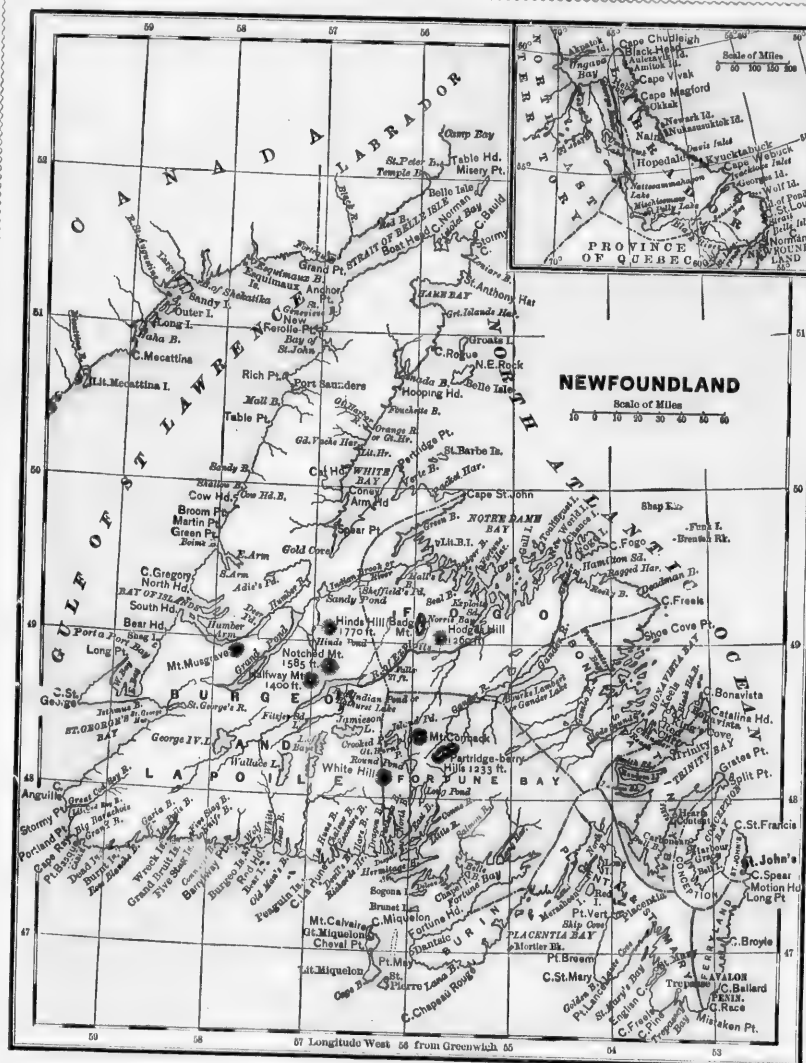
**10. Chief Places.**—Charlottetown (10,000), the county town of Queen's County, and the capital of the island, is situated three miles north of Hillsborough Bay. Its harbor is one of the best in the gulf. The city is well built. There are four public squares; on one of which, Queen Square, the Colonial or Parliament building stands. The Government buildings, the Churches, the Convent, the Palace of the Roman Catholic Bishop and the Lunatic Asylum are the chief edifices.

**Georgetown** (1100), the county town of King's County, 30 miles east of Charlottetown, is a trading town, and has a good harbor.

**Summerside** (1000), the capital of Prince County, on Bedeque Bay, 40 miles west of Charlottetown, is extensively engaged in shipbuilding, and has a large trade with New Brunswick and Nova Scotia.

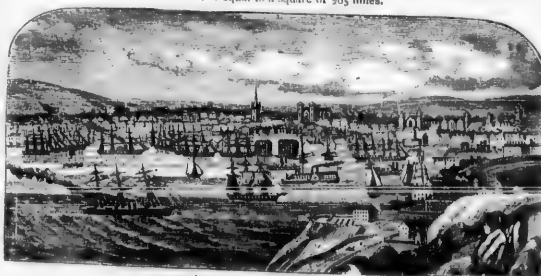
**Princetown**, in Prince County, is a flourishing seaport on Richmond Bay.

**11. The Commerce** of the island consists in the exchange of its agricultural produce, timber, ships, and fish, for British and American products.



PROVINCE OF NEWFOUNDLAND.

So called from being the first land found in the New World by John Cabot. Area, 40,200 square miles, or equal to a square of 205 miles.



ST. JOHN'S, THE CAPITAL OF NEWFOUNDLAND.

5. The Banks of Newfoundland, which stretch along the eastern and southern coasts of the island, are extensive submarine elevations, 600 or 700 miles long, and of various widths.

6. The Climate, though severe, is healthy. Winter is stormy, and later than in Canada. Snow does not lie long on the ground. Spring is late, and summer short and warm. In May and June fogs are frequent on the Banks. They do not penetrate the interior of the island and are not injurious to health. Thunder and lightning are rare. The longevity of the inhabitants is remarkable.

7. Products.—Coal, gypsum, copper, silver, lead, iron, and other minerals are abundant. The products of the coast fishery are also abundant.



CODFISHING ON THE BANKS OF NEWFOUNDLAND.

1. **Noted For.**—Newfoundland is noted for its fisheries, and for being the first British Colony established in America.

2. **Boundaries.**—It is bounded on the north, east, and south by the Atlantic Ocean, and on the west by the Gulf of St. Lawrence and the Strait of Belle Isle.

3. **Extent.**—Newfoundland is the largest island in the North American seas. It is triangular in shape, and is about 1200 miles in circumference. The greatest length, from Cape Norman, the northern extremity, to Cape Ray, the south-west extremity, is 317 miles, and its greatest breadth from Cape Spear, the most easterly point, to Cape Anguille, the most westerly point, is 317 miles.

4. **Physical Features.**—The coast line is pierced by many fine bays and harbors. The surface is diversified by numerous hills, rivers, lakes, mossy marshes, and barren rocky ridges, especially along the western coast.

(a.) **The Principal Lakes** are Grand Pond, Gander, Red Indian, George IV., Jamieson, and Wallace. Fresh water covers nearly one-third of the island.

(b.) **The Principal Rivers** are the Humber, Gander, Exploits, and Great Cod Roy.

(c.) **The Principal Islands** are South Belle Isle, New World, Fogo, St. Pierre, Langley, and Great Miquelon, the last three belonging to France.

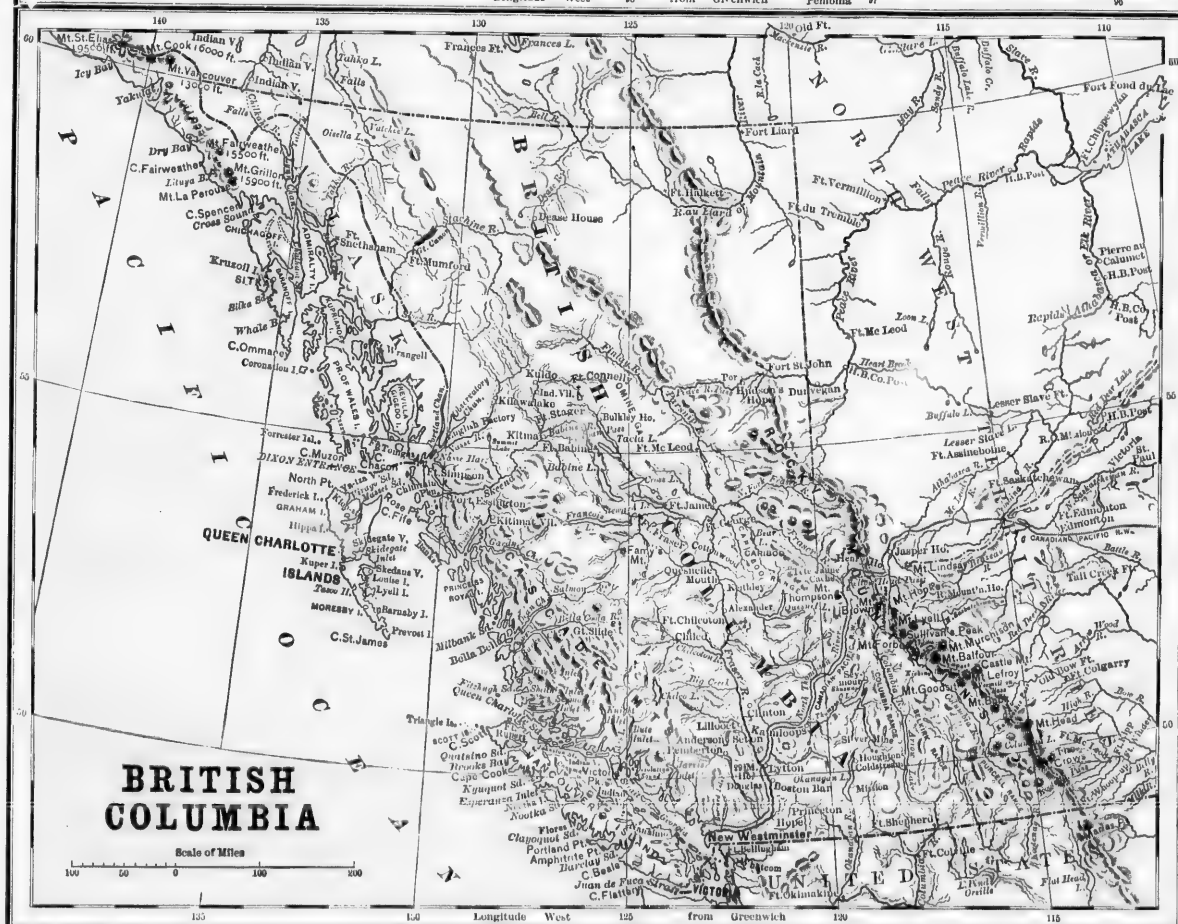
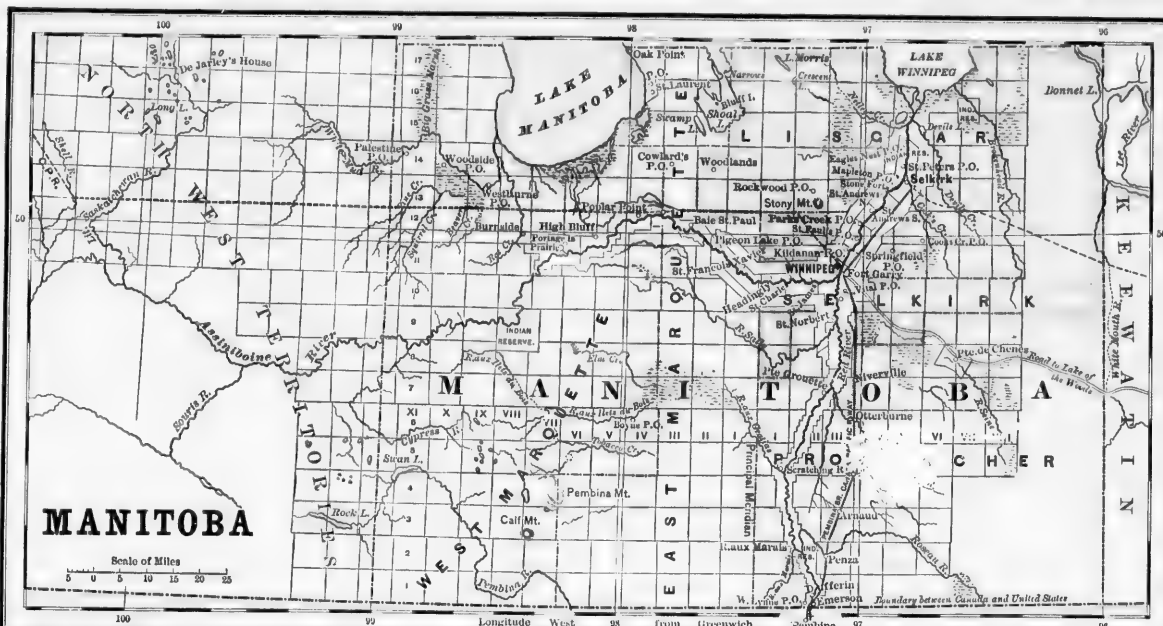
(d.) **The Strait of Belle Isle** is the northern outlet of the Gulf of St. Lawrence, between the coasts of Newfoundland and Labrador. It is 80 miles long, and 12 wide. The Canadian mail steamers to England take this route in summer, it being shorter than that to the south.

(e.) **The Principal Bays** are Conception, Trinity, Bonavista, Notre Dame, White, and Hare, on the east coast; St. John, Islands, and St. George's, on the west coast; and Fortune, Placentia, and St. Mary's, on the south coast. The Atlantic cable connects Trinity Bay with Valentia, Ireland.

(f.) **Peninsulas.**—There are four peninsulas on the east coast, four on the south coast, and one on the north coast. The two principal Peninsulas are the great Northern Peninsula and the Peninsula of Avalon. The latter is formed by Trinity and Placentia Bays, and contains about two-thirds of the whole population.

(g.) **The Principal Capes** are, on the north coast, Cape Norman, the most northerly point, and Cape Bauld, on Kirpon island; on the east coast, Cape Freels, Cape Bonavista (the first land seen by Cabot in 1497), Cape Spear, the most easterly point, and Cape Race, the south-east point of the island in the Peninsula of Avalon; on the south coast, Cape Freels, the most southerly point, Cape St. Mary, Point May, and Cape Ray, the south-west point of the island; and on the west coast, Cape Anguille, Cape St. George, and Cape Gregory.







CAPE RACE.

**9. Fisheries.**—The cod is the staple fish; it abounds, together with herring, mullet, mackerel, and capelan, on the adjacent banks. Cod, salmon, and seal fisheries are extensively carried on along the coast of Labrador and the north shore of the island.

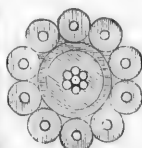
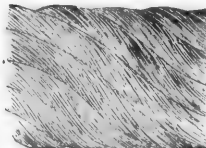
**8. Government.**—The electoral districts are fifteen in number. They are all on the east and south sides of the island; the west side being yet unsurveyed. The Government, since 1835, includes the coast of Labrador from Anse Sablon to the entrance of Hudson Strait. It is administered by a Governor, an Executive Council of seven members, a Legislative Council of fifteen members, and a House of Assembly of thirty-one members.

**10. Chief Places.**—**St. John's** (30,000), the capital of the island, and the most easterly seaport of America, is about 1700 miles from Ireland. The harbor is very safe. Vessels may ride any gale when inside the heads. The entrance, or the Narrows, is defended by several batteries. The chief public edifices are the Government house, the Parliament buildings, the Churches, and the Lunatic Asylum. A large trade is carried on in fish and seal oil. The manufacture of biscuits consumes 60,000 barrels of flour annually. Rope, block, shoe, and cabinetware factories, foundries and oil refineries are extensively worked. A submarine telegraph connects the city with the American Continent, and with Europe via Trinity Bay.

**Harbor Grace** (7000), on the north side of Conception Bay, is an important town, and carries on a large trade with the surrounding country.

**Carbonear** (5000), a town on the north side of Conception Bay, does a large trade in fish.

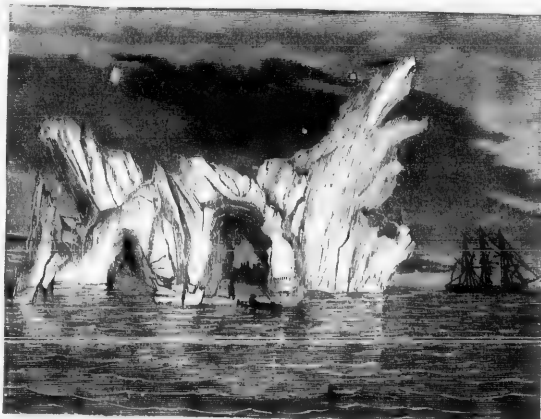
**Heart's Content** (1000), the western terminus of the Atlantic Telegraph Cable, is on the south side of Trinity Bay.



ATLANTIC CABLE—ACTUAL SIZE.

**11. Inhabitants.**—The original settlers were chiefly from Ireland, the islands in the British Channel, and France.

**12. Education.**—There are about 300 elementary schools and a Normal school; besides grammar schools and academies.



AN ICEBERG.

PROVINCE OF MANITOBA.

Area, 24,140 square miles, or equal to a square of about 110 miles.



WINNIPEG.

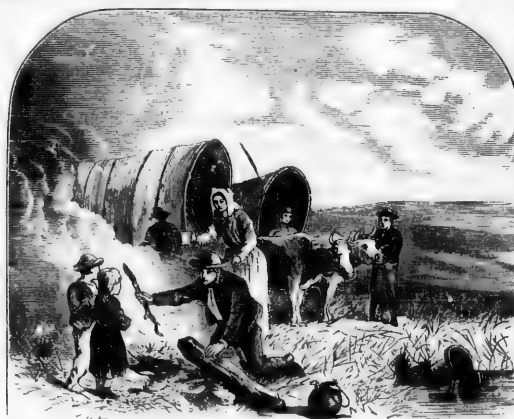
**1. Name.**—**Manitoba** means "A Spirit in the Strait." It was formerly called Selkirk Settlement, Assiniboine or Red River Settlement.

**2. Boundaries.**—It is bounded on the north and east by Keewatin; on the south by the United States; and on the west by the North-West Territories. It lies between the parallels of 49° and 50° 30' N. Lat., and between the meridians of 96° and 99° W. Long.

**3. Form.**—In form it is a parallelogram, 104 miles from north to south, 136 miles from east to west.

**4. Physical Features.**—The surface is mainly an extensive prairie, covered with tall grass, and diversified by groups of oak, elm, maple, poplar, and bass-wood near the streams. The Red River intersects the province from north to south, and the Assiniboine partly intersects it from east to west. The southern parts of Lakes Winnipeg and Manitoba are included in the Province.

**5. Inhabitants.**—The population consists of settlers from the older provinces. English and French half-breeds, and Indians.



HALT OF AN EMIGRANT PARTY.

**6. The Government** is administered by a Lieutenant Governor, an Executive Council of five members, a Legislative Council of seven members, and a Legislative Assembly of twenty-four members.

**7. Chief Places.**—**Winnipeg** (8000), the capital, is situated at the confluence of the Assiniboine and Red Rivers. It contains a college in connection with the Presbyterian Church, a Roman Catholic college, a Wesleyan educational institute, and several schools.

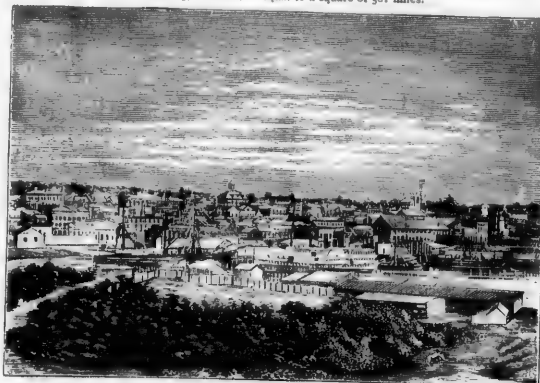
**Fort Garry**, the residence of the Lieutenant Governor, on the north bank of the Assiniboine.

**St. Boniface** is the terminus of the Pembina branch of the Canadian Pacific Railway. It has a college, an hospital, and an orphan asylum, and is the Metropolitan see of the Roman Catholic Bishop of St. Boniface.

**St. Johns**, on the north limits of the city of Winnipeg and of the parish of St. Boniface. It contains a college in connection with the Church of England, and some good schools.

## PROVINCE OF BRITISH COLUMBIA.

Area, 315,000 miles, or equal to a square of 561 miles.



VICTORIA, THE CAPITAL OF BRITISH COLUMBIA.

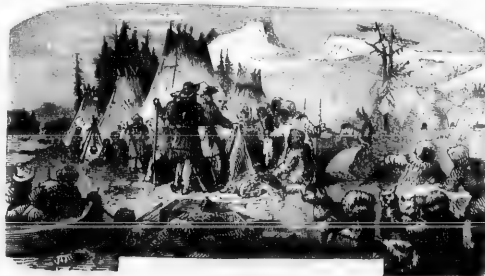
**1. Noted For.**—British Columbia is noted for its rich gold mines, its coal fields, and its comparatively mild climate.

**2. Boundaries.**—This province is bounded on the north by the 60th parallel of latitude; on the east by the 120th meridian W. to 54° N. Lat. and the main chain of the Rocky Mountains; on the south by the United States boundary; and on the west by the Pacific Ocean and Alaska.

**3. Extent.**—It is about 770 miles long, and 450 wide on the mainland. Vancouver Island, the largest on the Pacific coast, is 278 miles long, and from 50 to 60 miles wide. Its area is 16,000 square miles. It is separated from the mainland of British Columbia by the Gulf of Georgia and Queen Charlotte's Sound; from Washington Territory (in the United States) by the Strait of Juan de Fuca; and from the San Juan Archipelago by Haro Strait. Queen Charlotte Islands, off the north-west coast, form a part of British Columbia.

**4. Physical Features.**—The scenery is rugged and picturesque, being diversified with mountain, lake, and river. The southern part is well adapted to agriculture, and includes the rich gold district of Cariboo, and the valley of the Fraser River. The principal peaks of the Rocky Mountains are Mounts Brown and Hooker; the former 16,000 feet, and the latter 16,750 feet, above the sea level. The Athabaska Pass is between these two peaks, the summit of which is elevated 7,300 feet above the sea. To the south are the Vermilion and Kootenay Passes. The Fraser, the principal river, is 800 miles long, and a mile wide at its mouth. Its chief tributaries are the Stuart and Thompson Rivers. Simpson River, at the north, flows into the Pacific. The Columbia River, which takes its rise near Mounts Brown and Hooker, runs parallel to the Fraser River, and is joined by Flat Bow River at the United States boundary line. The Columbia is the largest river on the Pacific coast, and is, with its chief tributary, about 1000 miles long. The surface of Vancouver Island is marked by mountain ranges and extensive plains, and its coasts are indented with numerous good harbors.

**5. Climate.**—On the mainland along the Pacific coast the climate is equable; but towards the eastern Rocky Mountains it is variable. Winter lasts from November till March; but snow seldom remains long on the ground. The prevailing winds are from the north in summer, and from the south and the west in winter. In Vancouver Island there is little frost, and vegetation begins in February. The summer is hot, the autumn dry, and the winter stormy; fogs prevail, and the periodical rains fall heavily.



FUR-TRADERS.

**6. Products.**—The principal products, in addition to those of the soil, are furs, obtained chiefly from the beaver, the racoon, the land otter, and the sea otter. Fish abound on the coast. There are numerous gold diggings and there is an abundance of coal. There are also vast forests of magnificent timber, the Douglas pine sometimes attaining a height of 300 feet and a diameter of 30 feet.

**7. Government.**—The Government is administered by a Lieutenant Governor, an Executive Council of three members, and a Legislative Assembly of twenty-five members.

**8. Education** is free to all.

**9. Divisions.**—For electoral purposes the Province is divided into twelve districts, six on the mainland, viz.: New Westminster City, New Westminster District, Yale and Lytton, Lillooet and Clinton, Kootenay and Cariboo; and six in Vancouver Island, viz.: Victoria City, Esquimalt, Saanich, Cowichan, Nanaimo, and Comox.

**10. British Columbia and Vancouver Island** were, in 1858, by Act of the Imperial Parliament, erected into a British Colony, under one government; and, in 1871, the colony was admitted as one of the provinces of the Dominion of Canada.

**11. Chief Places.**—**Victoria** (6,000), the capital, at the south-east extremity of Vancouver Island. It has an excellent harbor, and is an important coaling station.

**Esquimalt**, three miles from Victoria, is Her Majesty's naval station on this part of the Pacific coast. It has a graving dock.

**Nanaimo**, on the eastern shore of Vancouver Island, has valuable mines of bituminous coal.

**New Westminster** (2500), the former capital, is 15 miles from the mouth of the Fraser River. Farther north are Forts Langley, Hope, and Yale.

## NORTH-EAST AND NORTH-WEST TERRITORIES.

**1. These Territories** were formerly called the Hudson Bay Territory, after Henry Hudson, who discovered the Bay in 1610, and perished on its shores. They were transferred to the Dominion of Canada by the Hudson Bay Company in 1870, and have since been styled the North-West Territories.

**2. Boundaries.**—They are bounded on the north by the Arctic Ocean; on the east by the Atlantic Ocean; on the south by Quebec, Ontario, Manitoba, and the United States; and on the west by British Columbia and Alaska.

**3. Divisions.**—These vast territories are divided into three parts by the district of Keewatin and the Province of Ontario.

**4.** The eastern division lies to the north of Quebec, and between the Atlantic Ocean on the east, and Hudson and James Bays, and Ontario on the west. The centre division is bounded on the north by Hudson Bay, on the east by James Bay, on the south by Ontario, and on the west by Keewatin. The western portion lies to the west of Keewatin and Manitoba. The valley of the Saskatchewan, called the Fertile Belt, contains an area of 64,000 square miles available for agricultural purposes. Beyond the Fertile Belt, as far north as the 60th parallel, in the valleys of the Athabaska and Peace Rivers, are vast regions, having an estimated area of three hundred million acres, admirably adapted to the growth of wheat and other cereals. The Mackenzie River country is a finely wooded and fertile plain. North and east of Lake Athabaska is a cold, barren region.



INDIAN LIFE IN THE NORTH-WEST TERRITORIES.



WESTERN PIONEERS.

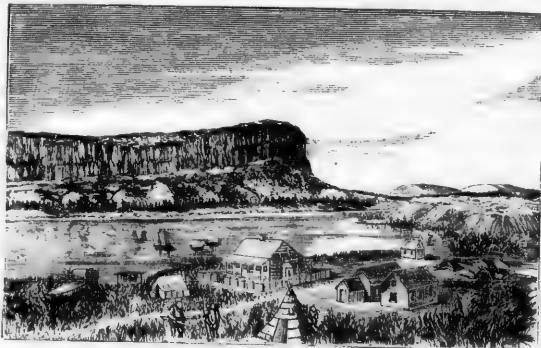
5. The Exports are chiefly the furs and skins of various animals.

6. Minerals.—Coal and iron abound, and gold is found in the valley of the Saskatchewan.

7. The Inhabitants include the white traders and half-breeds, besides numerous tribes of Indians and Eskimos.

8. The Government is vested in a Lieutenant Governor, two Stipendiary Magistrates, and a Legislative Council.

9. Capital.—Battleford, at the confluence of Battle River and the North Saskatchewan.



MOUTH OF LITTLE WHALE RIVER.

Little Whale River, a trading post of the Hudson Bay Company, where manufactured goods are bartered with the Indians for furs, and with the Eskimos for oil, ivory, and furs. Porpoises and seals are caught in this part of the coast of Hudson Bay.

10. The International Financial Society has upwards of fifty forts or fur trading posts in various parts of the country.

11. Labrador Peninsula lies between the Atlantic and Hudson Bay. Its estimated area is 420,000 square miles. It is divided into the North-East Territory in the west, and Labrador proper in the east. The latter is under the provisional government of Newfoundland. The climate is excessively severe. From September to June it is a region of almost perpetual snow. Wheat will not ripen; but barley cut green makes good fodder. The inhabitants on the coast are chiefly Eskimos, who subsist by fishing and hunting. In the interior there are Cree Indians. The principal articles of commerce are whale oil, seal oil, fish, furs, and birds' eggs. About 18,000 seals are annually taken. The exports are chiefly shipped through Newfoundland. The chief European settlements on the coast are Nain, Okhak, Hebron, and Hopedale.

KEEWATIN.

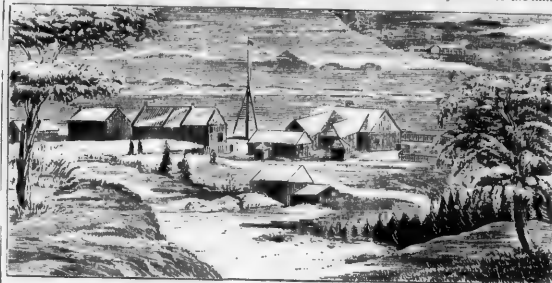
1. The District of Keewatin was formed from the North-West Territory, in 1876, by Act of the Dominion Parliament.

2. Boundaries.—It is bounded on the north by the Arctic Ocean; on the east by the meridian of 91° 8' West Long.; on the south by Ontario, the United States, and Manitoba. Its western boundary, after passing through Lakes Manitoba and Winnipegosis, runs along the meridian of 100° 8' West Long., to the northerly limits of Canada.

3. Area.—Its area is approximately estimated at 365,000 square miles.

4. Government.—It is under the jurisdiction of the Lieutenant Governor of Manitoba.

5. Lake Winnipeg, lying exactly in the centre of the American Continent, is almost wholly within the district of Keewatin. Its northern extremity is only 380 miles from the tide waters of Hudson Bay. Its outlet is the Nelson River, which has a fall of about twenty inches to the mile.



YORK FACTORY.

6. York Factory, at the mouth of Hayes River, is the chief trading post of the Hudson Bay Company on Hudson Bay.

Prince of Wales Fort is situated at the mouth of the Churchill.



ESKIMOS.

7. The Indians of British North America.—Although the Indian tribes which were scattered over the entire continent were very numerous, they have all been found to belong to eight or ten distinct groups or families. Four of these occupy the area of British North America, viz.:

I. The Eskimos, who, in their appearance, but still more in their manners, belief, and superstitious customs, resemble the natives of Lapland and Greenland; II. The Chipewyans (not the Chippewas or Ojibways, who are Algonquins); III. The Algonquins; IV. The Huron-Iroquois. Each of these groups speak a distinct language. The four groups are subdivided into various tribes, each speaking a dialect of their original tongue; yet among all the tribes a remarkable similarity in customs and institutions prevails. In color, form, temperament, religious belief, and pursuits, all are alike. The men engage in hunting and fishing; while the women perform other kinds of labor. These tribes number from 125,000 to 150,000.



## THE UNITED STATES OF AMERICA.

Size, about the same as British North America, or equal to a square of 1900 miles.

**1. Noted For.**—The United States are noted for their great area of habitable territory, stretching from the Atlantic to the Pacific, and including the great central river basin of the Mississippi; for the cotton, rice, and tobacco of the South, and for the railways, commerce, and manufactures of the North.

**2. Boundaries.**—Omitting Alaska, the United States are bounded on the north by Canada; on the east by the Atlantic Ocean; on the south by the Gulf of Mexico and the Republic of Mexico; and on the west by the Pacific Ocean.

**3. Extent.**—The extreme length from east to west, between the Atlantic and the Pacific, is about 2800 miles. The extreme breadth from north to south, between Manitoba and the mouth of the Rio Grande, is about 1700 miles. The area is estimated at about 3,611,844 square miles, or equal to a square of 1900 miles. The length of the coast line is about 12,000 miles.

**4. Physical Divisions.**—The territory of the United States is divided into three great natural regions: (a.) The Atlantic or Alleghany slope; (b.) The Mississippi Valley; and (c.) The Pacific or Rocky Mountain slope. The general character of the country is that of an immense plain, traversed by two chains of Mountains, viz. the Alleghany or Appalachian, and the Rocky Mountains, and drained by the great Mississippi river and its tributaries.

**5. Political Divisions.**—The United States consist of thirty-eight States, ten Territories, and one Federal District. The States may be classified as follows: six North Atlantic States, seven Middle Atlantic States, eight South Atlantic and Gulf States, fourteen Central States, and three Pacific States. Thirteen of the States were originally British Colonies. They declared their independence in 1776, and after a severe contest, it was acknowledged by Great Britain in 1783.



THE NATIONAL CAPITOL, WASHINGTON.

**6. Inhabitants.**—The United States were at first settled by immigrants from Great Britain and Ireland, and Holland. The population now consists of the descendants of people from every country in Europe, besides Negroes, Indians, and Chinese.

**7. General Government.**—The several States are united under one general government, called a Federal Republic. Each State has a government of its own; but the general concerns of the nation are entrusted to the Central government. This Government consists of three branches, viz. the Legislative, the Executive, and the Judicial power. The Legislative power is vested in a Congress, which consists of two branches, viz. the Senate and the House of Representatives. The Executive power is vested in a President. The members of his Cabinet are the Secretaries of State, the Treasury, War, the Navy, the Interior, the Postmaster General, and the Attorney General. The President and the Vice-President hold office for four years. The Vice-President is the presiding officer of the Senate. The Federal Judicial power is vested in one Supreme Court, and various Circuit and District Courts.

**8. State Government.**—Each State has its own independent legislature, judiciary, and executive government, consisting of a Senate and House of Representatives, a governor, judges, &c., who have the power to make, judge of, and execute all laws pertaining to the State, except such as belong to the General Government. The chief officer of a State is styled a Governor. Each State is for the most part divided into counties, and the counties into townships, as in Canada. In many of the States there is a land-fund for the support of schools. Education, by means of schools, colleges, and universities, is widely diffused, especially in the eastern and northern States.

## POLITICAL DIVISIONS OF THE UNITED STATES.

## THE SIX NORTH ATLANTIC, OR NEW ENGLAND STATES.

| Name of State.        | Position.                 | Derivation or Signification.    | Date of Settlement. | By whom Settled.        | Admitted into the Union. | Area in sq. miles. | Population (about 1860). | Capital.        | Where Situated.      | Mail distance from Washington in miles. | Population of Capital. |
|-----------------------|---------------------------|---------------------------------|---------------------|-------------------------|--------------------------|--------------------|--------------------------|-----------------|----------------------|-----------------------------------------|------------------------|
| 1. Maine.....         | In the N. E. of the U. S. | From Queen Henrietta's Fr. Fr.  | 1625                | The English.....        | 1820                     | 33,000             | 627,000                  | Augusta.....    | Kennebec River       | 505                                     | 8,000                  |
| 2. N. Hampshire.....  | South-west of Maine       | From Gov. Masson's birthplace.  | 1623                | The English.....        | 1776                     | 9,300              | 318,000                  | Concord.....    | Merrimack River..... | 474                                     | 12,200                 |
| 3. Vermont.....       | West of New Hampshire     | From its green Mountains.....   | 1724-31             | From Massachusetts..... | 1791                     | 10,300             | 331,000                  | Montpelier..... | White River.....     | 624                                     | 3,000                  |
| 4. Massachusetts..... | S. of Vermont & New H.    | India for "Blue Mountains"..... | 1620                | The Puritans.....       | 1776                     | 7,800              | 1,457,000                | Boston.....     | Massachusetts Bay    | 432                                     | 282,000                |
| 5. Rhode Island.....  | S. of Massachusetts.....  | From the Isle of Rhodes.....    | 1631                | Roger Williams.....     | 1776                     | 1,300              | 217,000                  | Providence..... | Narragansett Bay     | 304                                     | 19,000                 |
| 6. Connecticut.....   | West of Rhode Island..... | Ind. Quonektaut, or Long River  | 1633                | The English.....        | 1776                     | 4,700              | 537,000                  | Newport.....    | Rhode Island.....    | 403                                     | 3,000                  |
|                       |                           |                                 |                     |                         |                          |                    |                          | Hartford.....   | Connecticut River    | 335                                     | 27,000                 |

## THE SEVEN MIDDLE ATLANTIC STATES.

|                        |                             |                                  |         |                                |      |        |           |                 |                     |     |        |
|------------------------|-----------------------------|----------------------------------|---------|--------------------------------|------|--------|-----------|-----------------|---------------------|-----|--------|
| 7. New York.....       | W. of Ver. Mass. & Con.     | After the Duke of York & Albany. | 1609    | The Dutch.....                 | 1776 | 47,000 | 4,377,000 | Albany.....     | Hudson River.....   | 376 | 70,000 |
| 8. Pennsylvania.....   | South of New York.....      | After Wm. Penn, its founder..... | 1631-42 | Swedes and English.....        | 1776 | 46,000 | 3,522,000 | Harrisburg..... | Susquehanna R.....  | 126 | 23,000 |
| 9. New Jersey.....     | East of Pennsylvania.....   | After Lord De la Warr.....       | 1607    | Dutch and Swedes.....          | 1776 | 8,320  | 906,000   | Trenton.....    | Delaware River..... | 175 | 22,800 |
| 10. Delaware.....      | West of Delaware Bay.....   | After Henrietta Maria.....       | 1634    | Eng. col. of R. Catholics..... | 1776 | 11,124 | 781,000   | Dover.....      | Jones River.....    | 161 | 1,000  |
| 11. Maryland.....      | West of Delaware.....       | After Queen Elizabeth.....       | 1607    | The English.....               | 1776 | 38,350 | 1,125,000 | Annapolis.....  | Seven River.....    | 45  | 5,000  |
| 12. Virginia.....      | South-west of Maryland..... | After Old Virginia.....          | 1607    | The English.....               | 1776 | 38,350 | 1,125,000 | Richmond.....   | Jones River.....    | 140 | 51,000 |
| 13. West Virginia..... | West of Virginia.....       |                                  |         |                                | 1863 | 22,000 | 442,000   | Wheeling.....   | Ohio River.....     | 400 | 20,000 |

## THE FOUR SOUTH ATLANTIC AND THE FOUR GULF STATES.

|                      |                           |                                                       |      |                         |      |         |           |                  |                        |       |         |
|----------------------|---------------------------|-------------------------------------------------------|------|-------------------------|------|---------|-----------|------------------|------------------------|-------|---------|
| 14. N. Carolina..... | South of Virginia.....    | After Charles II. of England.....                     | 1665 | The English.....        | 1776 | 50,704  | 1,071,000 | Raleigh.....     | Neuse River (near)     | 315   | 10,000  |
| 15. S. Carolina..... | South of N. Carolina..... | After Charles II. of England.....                     | 1670 | English and French..... | 1776 | 34,000  | 706,000   | Columbia.....    | Congaree River.....    | 576   | 9,200   |
| 16. Georgia.....     | S. W. of S. Carolina..... | After George II. of England.....                      | 1732 | Gen. Oglethorpe.....    | 1733 | 58,900  | 1,181,000 | Atlanta.....     | Chattahoochee R.....   | 221   | 22,000  |
| 17. Florida.....     | South of Georgia.....     | From being disc. by the Spaniards on Palm Sunday..... | 1580 | The Spanish.....        | 1845 | 59,308  | 18,000    | Tallahassee..... | Ocklawaha River.....   | 1,105 | 2,000   |
| 18. Alabama.....     | West of Georgia.....      | Indian for "Here we rest".....                        | 1733 | The French.....         | 1819 | 50,722  | 297,000   | Montgomery.....  | Alabama River.....     | 1,019 | 11,000  |
| 19. Mississippi..... | South of Alabama.....     | Indian for "The great water".....                     | 1619 | The French.....         | 1817 | 47,156  | 825,000   | Jackson.....     | Pearl River.....       | 1,004 | 4,000   |
| 20. Louisiana.....   | S. W. of Mississippi..... | After Louis XIV. of France.....                       | 1763 | The French in 1699..... | 1812 | 41,255  | 727,000   | New Orleans..... | Mississippi River..... | 1,000 | 191,000 |
| 21. Texas.....       | West of Louisiana.....    | Spanish for "Tent covering".....                      | 1687 | The Spanish.....        | 1845 | 274,356 | 819,000   | Austin.....      | Colorado River.....    | 1,818 | 5,000   |

## THE FOURTEEN CENTRAL STATES.\*

|                    |                              |                                     |      |                             |      |         |           |                   |                                 |       |        |
|--------------------|------------------------------|-------------------------------------|------|-----------------------------|------|---------|-----------|-------------------|---------------------------------|-------|--------|
| 22. Wisconsin..... | West of Lake Michigan.....   | Indian.....                         | 1830 | Various States.....         | 1848 | 53,924  | 1,055,000 | Madison.....      | Det. 3d & 4th Lakes             | 1,092 | 9,000  |
| 23. Michigan.....  | Det. Lakes Sup. & Huron..... | Indian for "Great Lake".....        | 1670 | The French.....             | 1837 | 66,451  | 1,334,000 | Lansing.....      | Grand River.....                | 819   | 7,500  |
| 24. Illinois.....  | East of Michigan.....        | Indian for "Here are men".....      | 1740 | The French.....             | 1818 | 55,410  | 2,540,000 | Springfield.....  | Sangamon River.....             | 1,024 | 17,300 |
| 25. Indiana.....   | East of Illinois.....        | Indian for "Beautiful River".....   | 1730 | The French.....             | 1816 | 33,809  | 1,081,000 | Indianapolis..... | West Br. White R.....           | 725   | 48,000 |
| 26. Ohio.....      | S. of Indiana and Ohio.....  | Do. "Dark and bloody ground".....   | 1750 | New England.....            | 1802 | 33,901  | 2,065,000 | Columbus.....     | Schoto River.....               | 534   | 34,000 |
| 27. Kentucky.....  | South of Kentucky.....       | Indian name of the river.....       | 1765 | Daniel Boone from Virg..... | 1792 | 37,680  | 1,221,000 | Frankfort.....    | Kentucky River.....             | 867   | 8,500  |
| 28. Tennessee..... | West of Wis. & L. Sup.....   | Indian for "Sky-colored water"..... | 1765 | The English.....            | 1796 | 35,690  | 1,258,500 | Nashville.....    | Cumberland River.....           | 774   | 26,000 |
| 29. Minnesota..... | South of Minnesota.....      | Indian.....                         | 1857 | Various States.....         | 1857 | 83,331  | 439,000   | St. Paul.....     | Mississippi River.....          | 1,347 | 20,000 |
| 30. Iowa.....      | South of Iowa.....           | Indian for "Mad River".....         | 1833 | The French.....             | 1846 | 55,045  | 1,194,000 | Des Moines.....   | Hudson Br. of Des Moines R..... | 1,220 | 12,000 |
| 31. Missouri.....  | South of Missouri.....       | Ar. French and Kansas.....          | 1765 | The French.....             | 1821 | 68,000  | 721,000   | Jefferson.....    | Missouri River.....             | 1,119 | 4,500  |
| 32. Arkansas.....  | West of Iowa.....            | Indian for "Broad River".....       | 1804 | Various States.....         | 1867 | 52,500  | 484,500   | Little Rock.....  | Arkansas River.....             | 1,008 | 12,400 |
| 33. Nebraska.....  | South of Nebraska.....       | Indian for "Good Potato".....       | 1861 | Various States.....         | 1867 | 77,360  | 1,221,000 | Lincoln.....      | Platte R. (near).....           | 500   | 5,000  |
| 34. Kansas.....    | West of Kansas.....          | Spanish for "Red River".....        | 1858 | Various States.....         | 1861 | 81,318  | 361,000   | Topeka.....       | Kansas River.....               | 600   | 6,000  |
| 35. Colorado.....  |                              |                                     |      |                             | 1875 | 104,500 | 60,000    | Denver.....       | South Platte R.....             | 500   | 5,000  |

\* The first seven east, and the remaining seven west of the Mississippi.

## THE THREE PACIFIC STATES.

| Name of State.      | Position.               | Derivation or Signification. | Date of Settlement. | By whom Settled.    | Admitted into the Union. | Area in sq. miles. | Population (about 1870). | Capital.        | Where Situated.                    | Mail distance from Washington in miles. | Population of Capital. |
|---------------------|-------------------------|------------------------------|---------------------|---------------------|--------------------------|--------------------|--------------------------|-----------------|------------------------------------|-----------------------------------------|------------------------|
| 26. Oregon.....     | S. of Washington Terr.  | Spanish for "Wild Sage"..... | 1811                | Various States..... | 1859                     | 95,274             | 91,000                   | Salem.....      | Willamette River by St. Louis..... | 4,470                                   | 2,900                  |
| 27. California..... | South of Oregon.....    | Spanish.....                 | 1769                | The Spanish.....    | 1850                     | 185,000            | 860,000                  | Sacramento..... | Sacramento River by St. Louis..... | 3,670                                   | 16,900                 |
| 28. Nevada.....     | East of California..... | Spanish for "White".....     | 1858                | Various States..... | 1864                     | 112,000            | 42,000                   | Carson.....     | Carson R. (near).....              | .....                                   | 3,000                  |

## THE FEDERAL DISTRICT AND THE TEN TERRITORIES.

| Name of State or Territory. | Position.                        | Derivation or Signification.        | Date of Settlement. | By whom Settled.        | Admitted into the Union. | Area in sq. miles. | Population (about 1870). | Capital.           | Where Situated.                  | Mail distance from Washington in miles. | Population of Capital. |
|-----------------------------|----------------------------------|-------------------------------------|---------------------|-------------------------|--------------------------|--------------------|--------------------------|--------------------|----------------------------------|-----------------------------------------|------------------------|
| 1. Columbia Dis.            | Bet. Virginia & Maryland.        | After Christopher Columbus.....     | 1790                | Various States.....     | Organized                | 64                 | 132,000                  | WASHINGTON         | Potomac River.....               | .....                                   | 169,000                |
| 2. Dakota.....              | West of Minnesota.....           | Indian for "allied" tribes.....     | 1868                | Various States.....     | 1861                     | 151,000            | 14,000                   | Yankton.....       | Missouri River.....              | .....                                   | 700                    |
| 3. Indian Terr.             | South of Kansas.....             | Terr. reserved for the Indians..... | 1868                | The Indians.....        | 1861                     | 68,000             | 70,000                   | Tahlequah.....     | Arkansas R. (near).....          | .....                                   | .....                  |
| 4. Montana.....             | West of Dakota.....              | From rocky mountains.....           | 1868                | Various States.....     | 1889                     | 145,000            | 21,000                   | Helena.....        | Missouri R. (near).....          | .....                                   | 3,000                  |
| 5. Wyoming.....             | South of Montana.....            | Indian.....                         | 1868                | Various States.....     | 1890                     | 96,000             | 9,000                    | Cheyenne.....      | Platte River (near).....         | .....                                   | 1,400                  |
| 6. New Mexico.....          | South of Colorado.....           | After "Mexiti".....                 | 1891                | The Spanish.....        | 1850                     | 121,000            | 92,000                   | Santa Fe.....      | Santa Fe R. (near).....          | .....                                   | 7,000                  |
| 7. Idaho.....               | West of Montana and Wyoming..... | Indian for "Star".....              | 1868                | Various States.....     | 1868                     | 86,000             | 15,000                   | Boise City.....    | Snake Riv. aff. of Columbia..... | .....                                   | 1,900                  |
| 8. Utah.....                | West of Colorado.....            | Indian.....                         | 1848                | The Mormons.....        | 1850                     | 84,500             | 87,000                   | Salt Lk. city..... | Jordan River.....                | .....                                   | 13,000                 |
| 9. Arizona.....             | South of Utah.....               | Spanish.....                        | 1868                | Various States.....     | 1863                     | 115,000            | 10,000                   | Tucson.....        | Santa Cruz River.....            | .....                                   | 3,000                  |
| 10. Washington.....         | S. of British Columbia.....      | After Gen. Washington.....          | 1811                | Various States.....     | 1853                     | 70,000             | 24,000                   | Olympia.....       | Head of Puget Sd.....            | 3,640                                   | 1,200                  |
| 11. Alaska.....             | In the N.W. of the Cont.         | A great country, or continent.....  | 1811                | Leutes and Indians..... | 1867                     | 586,286            | 70,481                   | Sitka.....         | Sitka Island.....                | .....                                   | 2,900                  |

## I. THE NORTH ATLANTIC OR NEW ENGLAND STATES.

**1. Noted For.**—The New England States are noted for the stirring incidents in their early colonial history, their educational establishments, and the variety and extent of their manufactures.

**2. Position.**—These States are bounded on the north by the Province of Quebec, on the east by New Brunswick and the Atlantic Ocean, on the south by the Atlantic Ocean, and on the west by the State of New York.

**3. Physical Features.**—With the exception of Vermont, the North Atlantic States lie on the Atlantic seaboard, and are indented with numerous bays and harbors. The Alleghany or Appalachian Mountains, under various names, run in a south-western and southern direction, giving a south and south-eastern slope to the rivers. In Vermont they are called the Green Mountains, and in New Hampshire the White Mountains. The principal rivers are the Penobscot and the Kennebec in Maine; the Merrimac in New Hampshire; and the Connecticut, separating New Hampshire from Vermont, and running through Massachusetts and Connecticut.

**4. Climate and Products.**—Being the most northerly of the United States, the climate in the North Atlantic States is generally colder, especially in Maine, than in the other States; but it is less so in Massachusetts and Connecticut. Agriculture is the chief pursuit in the New England States; but, owing to their maritime position, early settlement, and abundance of water-power, their fisheries, commerce, and manufactures have acquired great importance.

**5. Travelling Facilities.**—In no part of the United States are these facilities developed in a higher degree than in New England. Radiating from Boston (the commercial capital) railroads diverge in every direction. Portland, in Maine, forms the eastern terminus of the Grand Trunk Railway of Canada, and in winter is an outlet to the ocean for Canadian products. The completion of the Intercolonial Railway has made Halifax, in Nova Scotia, also an outlet in winter for Canadian products.

**6. Inhabitants.**—The original settlers were British colonists who named their new home New England. The principles of civil and religious liberty which they brought with them from England have taken deep root, and have been ever since developed in their political institutions.

**7. States.**—(A.) **Maine** lies west of New Brunswick, and south-east of the Province of Quebec. Its surface is hilly. The highest summit is Mount Katahdin (5385 feet). It is well watered with numerous lakes and rivers. The valleys of the St. John, Penobscot, and Kennebec are fertile and productive. Moosehead, Chesuncook, and Schoodic are the largest lakes. Forests of pine, hemlock, fir, and oak cover the larger part of the State. It is called the Lumber State. Lumber and ships are the chief articles of commerce. It is noted for its excellent harbors.

(a.) **Chief Cities.**—Augusta (8000), the capital, is situated on the Kennebec River. It has an arsenal.

**Eastport** (4000), at the east of the State, has a large trade with New Brunswick and Nova Scotia.

**Portland** (31,400), on Casco Bay, the largest city and chief seaport, has an excellent harbor and extensive commerce.

**Bangor** (18,300), on the Penobscot, is a great lumber depot.

**Bath** (8000), near the mouth of the Kennebec River, has extensive shipbuilding.

**Lewiston** (13,000), on the Androscoggin River, has manufactures of cotton and woollen goods.

(B.) **New Hampshire** lies south-west of Maine. It is mountainous, except at the south-east; and its scenery, especially in the White Mountains, is one of the most picturesque in the United States. Mount Washington (6428 feet), the highest peak of the White Mountains, is one of the loftiest of the Alleghenies. The Connecticut and Piscataqua are boundary rivers. The Merrimac flows through the State. It has but one harbor, and only eighteen miles of sea coast. Iron is abundant, and tin has been discovered. Its geological formation has caused it to be called the Granite State.

(b.) **Chief Cities.**—Concord (12,300), the capital, on the Merrimac River, is a railroad centre. It is famous for its manufacture of carriages.

**Manchester** (23,500), on the Merrimac, is the largest city, and one of the chief seats of the cotton and woollen manufactures of America.

**Nashua** (10,500), on the Nashua River, near its junction with the Merrimac, and **Dover** (9000), on the Cochecho River, have manufactures of cotton goods and shoes.

**Portsmouth** (9200), at the mouth of the Piscataqua River, has a large and excellent harbor. It is an important naval station and shipping port.

(C.) **Vermont** lies west of New Hampshire. It is traversed by the celebrated Green Mountains (the *Vert Monts* of the French), which extend into Massachusetts and Connecticut, and form the water-parting between the numerous rivers flowing east to the Connecticut River, and those flowing west into the Hudson River and Lake Champlain. The highest summit of the Green Mountains is Mount Mansfield (4355 feet). Lake Champlain bounds the State on the west for 104 miles, and separates it from the State of New York. The Connecticut River forms the eastern boundary. Vermont is chiefly an agricultural and a grazing State. It possesses good marble, stone, and slate quarries.

(c.) **Chief Cities.**—Montpelier (3000), the capital, on the Winooski or Onion River, east of the Green Mountains, has, from its central position, an extensive trade. It has fine water-power and numerous mill-sites. It is on the railway route connecting the Atlantic at Boston, and the River St. Lawrence at Montreal.

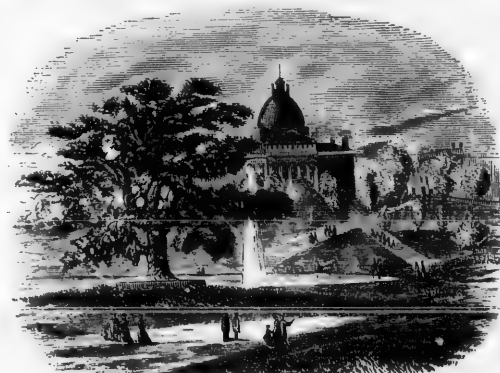
**Burlington** (14,400), the largest city, is beautifully situated on Lake Champlain. It is the seat of the University of Vermont. It has a large lumber trade.

**Rutland** (10,000), on Otter Creek, has fine quarries and large factories of white and variegated marble. Iron ore is found in the neighborhood.

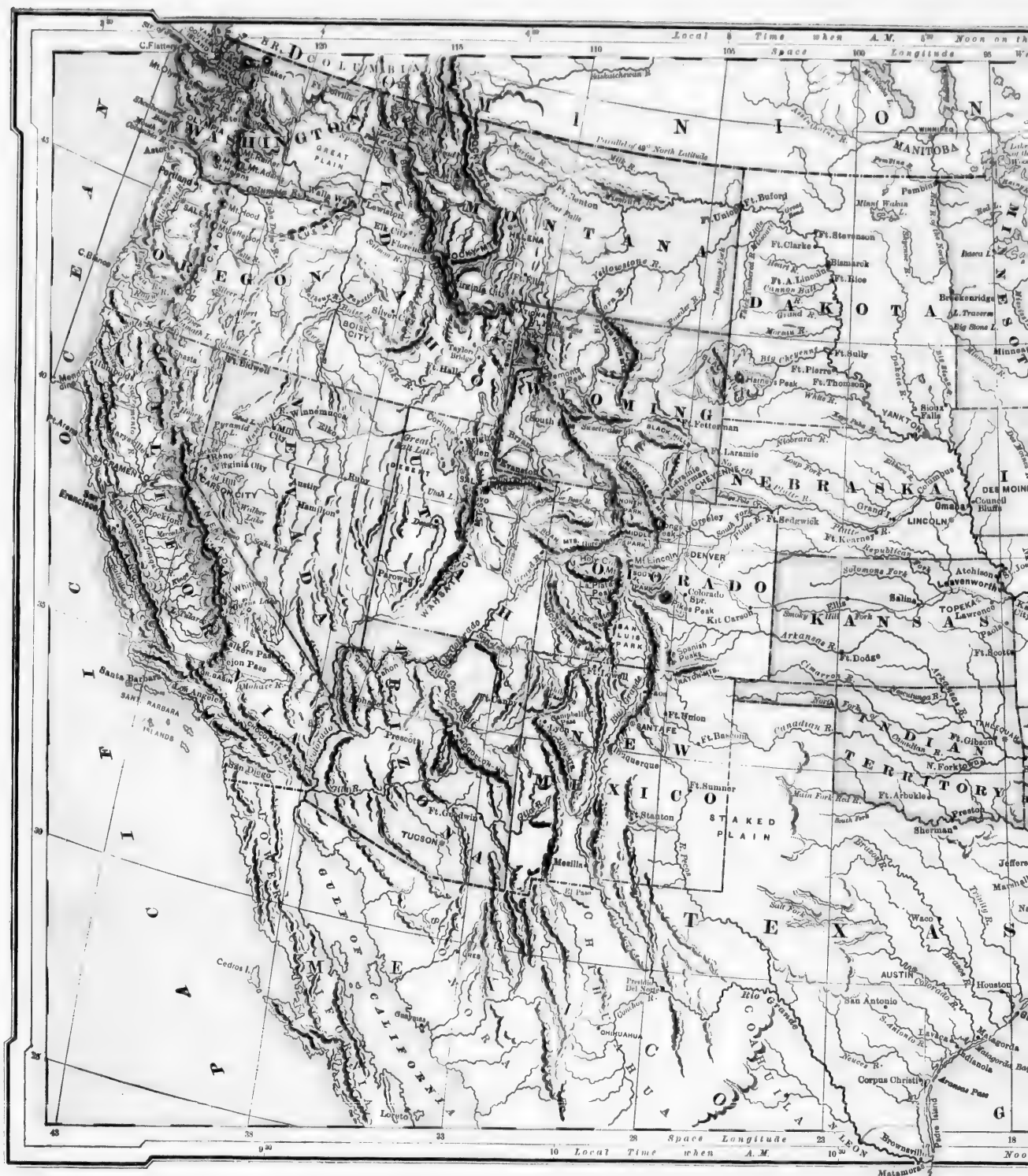
**Brattleboro** (5000), on the Connecticut, and **Middlebury** (4000), on Otter Creek, are extensive manufacturing towns.

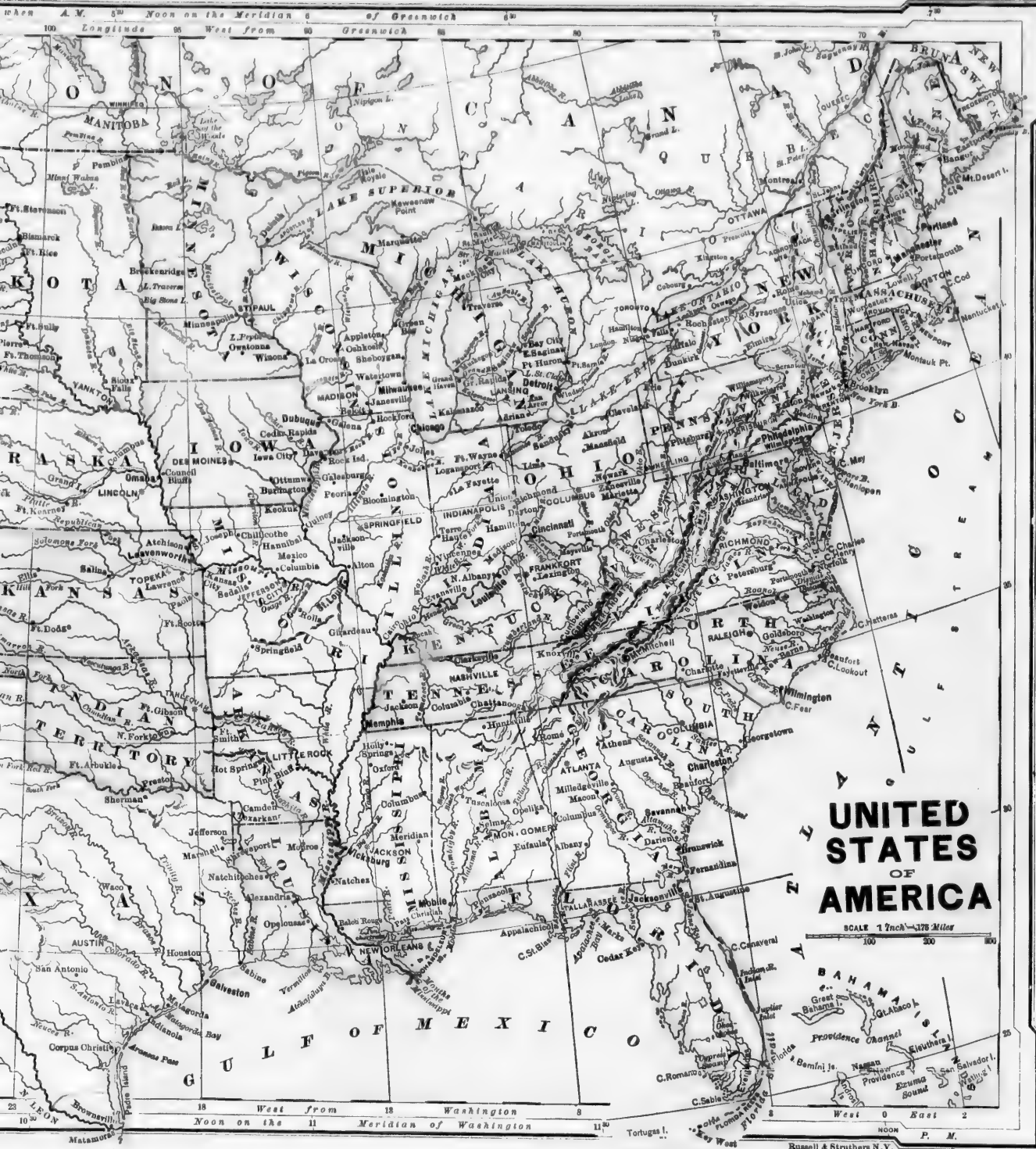
**St. Albans** (7500), near Lake Champlain, has manufactures of railway cars and rails.

(D.) **Massachusetts**, the Bay State, was first settled by English Puritans. Its boundaries touch upon all the New England States except Maine. It is hilly rather than mountainous. The soil is poor, but agriculture is skillfully and successfully pursued. It has abundance of water-power, and ranks as the first State in the Union in the value of its manufactures. Its commerce is second only to that of New York State. It is noted for its shipbuilding, and its whaling, cod, and mackerel fisheries. The foundation of its commercial prosperity and general intelligence was laid while it was a British colony, and its pre-eminence in these respects has been maintained. The principal rivers are the Merrimac and the Connecticut. Massachusetts Bay, Cape Cod Bay, and Buzzard's Bay are the chief indentations along the coast. The island of Nantucket and Martha's Vineyard form part of the State.

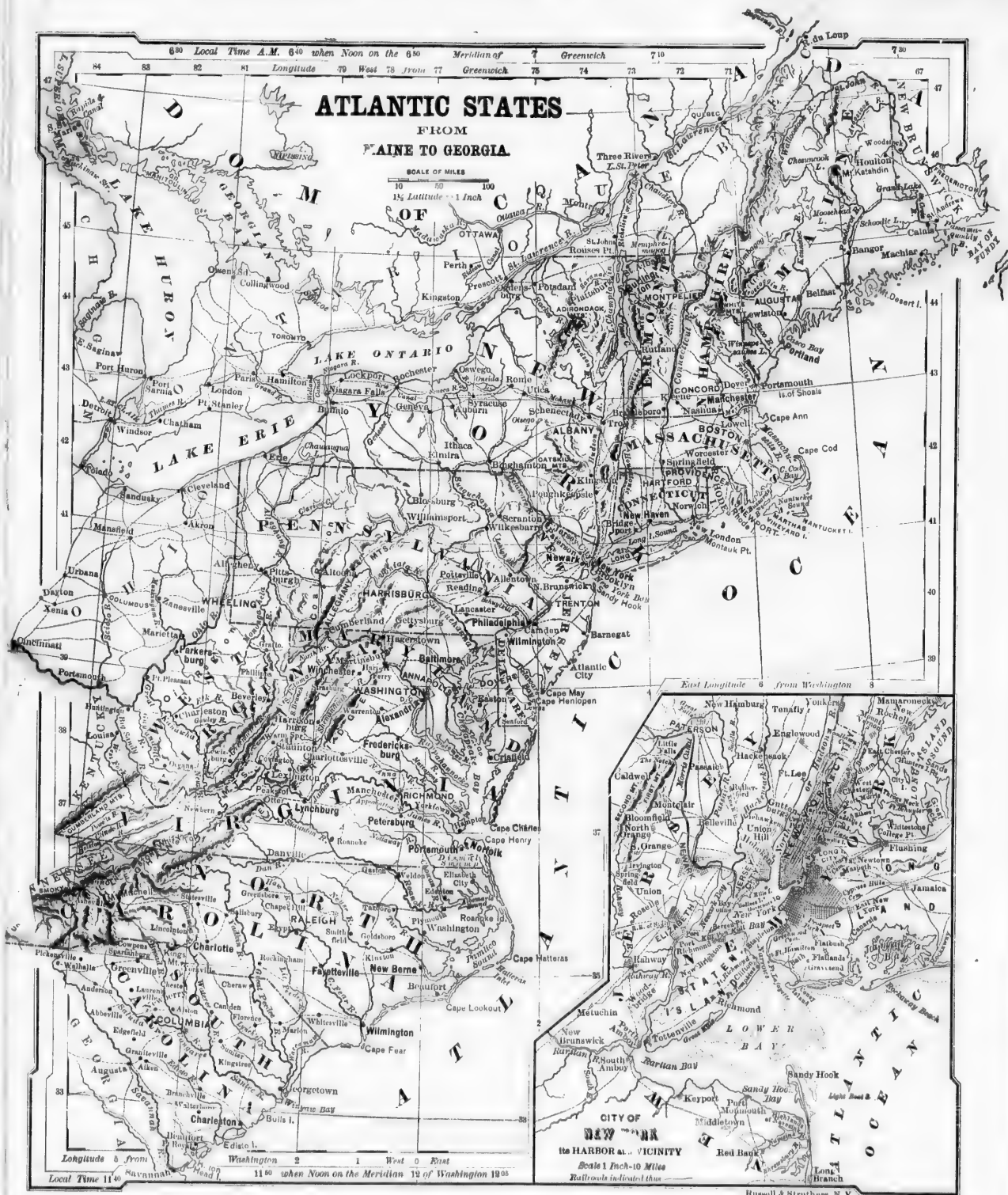


BOSTON COMMON.









(d.) **Chief Cities.**—**Boston** (282,000), the capital, is the chief commercial city of New England, and, from its literary institutions, has been styled the Athens of America. It is situated at the head of Massachusetts Bay, and has a fine harbor. In the extent of its commerce, it ranks next to New York city. The Old State House and Faneuil Hall are noted in its political history. Benjamin Franklin was born here in 1706. The city consists of three parts, Boston Proper or Old Boston, East Boston, and South Boston. Boston Proper is situated on a peninsula, which is joined to the mainland by an isthmus called the "Neck." The harbor and its approaches are strongly fortified.



HARVARD UNIVERSITY.

**Cambridge** (39,600), near Boston, is the seat of Harvard University, founded by the Rev. John Harvard, an Englishman, in 1638, and fostered by the State Legislature. The Astronomical Observatory connected with the University is one of the most celebrated in the world.

**Charlestown** (26,000), opposite Boston, has a United States navy yard. In the neighborhood is Bunker Hill, the scene of a celebrated battle between the British troops and the Colonists, in 1775.

**Salem** (24,000), on Massachusetts Bay, a wealthy seaport, has a valuable museum, with over 5000 curiosities of nature and art.

**Lynn** (28,200), nine miles north of Boston, on Massachusetts Bay, has extensive manufactories of boots and shoes.

**Lowell** (41,000), at the confluence of the Concord and Merrimac Rivers, is the chief city in cotton manufacture, hence called the Manchester of America. It is also celebrated for carpets, and for linen and woollen goods.

**Lawrence** (39,000), on the Merrimac, is noted for cotton, woollen, and steam-engine manufactures.

**New Bedford** (21,300), on Buzzard's Bay, is the headquarters of the United States whale fishery.

**Fall River** (26,800), at the mouth of Taunton River, has cotton mills, iron works, and an active shipping trade.

**Worcester** (41,100), in the interior of the State, at the head of Blackstone River, is a railway centre, and an important manufacturing city.

**Springfield** (27,000), on the Connecticut, contains the largest arsenal in the United States, and is noted for its manufacture of fire-arms, such as guns and pistols.

**Plymouth** (6000) is the oldest town in New England. Here the Pilgrim Fathers landed from the Mayflower, 25th December, 1620.

(E.) **Rhode Island**, familiarly called Little Rhoda, is the smallest State in the Union. It lies between Connecticut and the south-eastern part of Massachusetts. The State takes its name from a small island (shaped like the Isle of Rhodes, in the Mediterranean) in Narraganset Bay. Its rivers furnish water-power for manufacturing purposes. It has two capitals.

(a.) **Chief Cities.**—**Providence** (69,000), one of the capitals, at the head of Narraganset Bay, ranks in size as the second city in New England. It was founded by Roger Williams in 1636, and is the seat of Brown University, and is noted for its numerous manufactures and extensive commerce.

**Newport** (12,500), the other capital, on the island of Rhode Island, has a fine harbor, and is a fashionable watering-place.

**Pawtucket**, where the first cotton mill in America was erected, is largely engaged in the manufacture of cottons.

(F.) **Connecticut**, the Freestone State, lies between Rhode Island and New York. Long Island Sound is its southern boundary. Its principal rivers are the Connecticut, which divides it almost equally, the Housatonic, and the Thames. The surface is diversified by hills and valleys. Connecticut possesses valuable minerals, and its manufactures are more varied than those of any other State. It is noted also for its agriculture. The industry and sobriety of the people have acquired for Connecticut the name of the Land of Steady Habits.

(G.) **Chief Cities.**—**Hartford** (37,000), the capital, situated on the Connecticut River, is an extensive manufacturing town. It is the seat of Trinity College. Near Hartford there was an oak (blown down in 1856), called the Charter Oak, in which the original charter of King Charles II. was hidden, when the Governor sent out by James II. sought to obtain it.

**New Haven** (50,500), the largest city, and the third in size in New England, is four miles from Long Island Sound. It has been called the City of Elms, and is one of the most beautiful cities in the United States. It is the seat of Yale College.

**Middletown** (6000), on the Connecticut River, is the seat of the Wesleyan University.

**Bridgeport** (19,000), on Long Island Sound, and **Norwich** (16,600), on the Thames, are manufacturing centres.



THE CITY OF NEW YORK, FROM BROOKLYN HEIGHTS.

## II. THE MIDDLE ATLANTIC STATES.

1. **Noted For.**—**New York** is chiefly noted for its commercial pre-eminence, and for its railways and canals; **Pennsylvania**, for its coal, iron, and petroleum; **New Jersey**, for its fruit; **Delaware**, for its fruit and grain; **Maryland**, for its wheat and tobacco; **Virginia**, for its tobacco, iron, and salt; and **West Virginia**, for its grain, iron, and coal.

2. **Position.**—The Middle Atlantic States extend from Lake Champlain to Lake Erie, and from the Atlantic to the Ohio. The Province of Ontario is at the north, and the State of North Carolina at the south.

3. **Physical Features.**—The Appalachian Mountains, under various names, run through this division from north-east to south-west in parallel ranges, separated by fertile valleys. In New York, they are called the Adirondack and Catskill ranges;

in Pennsylvania, the Laurel Ridge, the Alleghany, the Tuscarora, and the Blue Mountains; and in Virginia, the Alleghany Mountains, the Shenandoah Ridge, and the Blue Ridge. The chief rivers are the Hudson (300 miles), from the Adirondack Mountains, emptying into New York Bay; the Delaware (300 miles), from the Catskill Mountains, forming the boundary between New Jersey and Pennsylvania, and emptying into Delaware Bay; the Susquehanna (400 miles), from Lake Otsego in New York, flowing through Pennsylvania and emptying into Chesapeake Bay; the Potomac, from the Alleghany Mountains, forming the boundary between Maryland and Virginia, and emptying into Chesapeake Bay; and the James River, from the Alleghany Mountains, flowing through Virginia, and emptying into the south end of Chesapeake Bay. The Alleghany and the Monongahela unite at Pittsburgh in Pennsylvania and form the Ohio. The Genesee and the Oswego in New York are tributaries of Lake Ontario. The Niagara and St. Lawrence rivers, with Lakes Erie and Ontario, form the northern boundary of these States.

4. **Climate.**—The climate of New York does not differ much from that of Ontario. In the other States, the climate is warmer.

5. **Travelling Facilities.**—These are developed in a high degree, especially in New York and Pennsylvania. Two railways, and a canal to the Hudson River, connect Lakes Erie and Ontario with the cities of Albany and New York; while rivers, canals, and railways intersect Pennsylvania.

6. **Inhabitants.**—These States were first settled by the English and the Dutch, and, probably, the continued commercial pre-eminence of these States may be thus accounted for.

7. **States.**—(A.) **New York**, called the Empire State, is triangular in shape, with its longest side bordering upon Lakes Erie and Ontario, and the River St. Lawrence. The Adirondack Mountains separate the rivers falling into Lake Ontario and the St. Lawrence from those falling into Lake Champlain and the Hudson. Midway in the State, these mountains, which form a curve towards the Catskills, are intersected by the Mohawk River and its fertile valley. Mount Marcy, 5467 feet, in the Adirondacks, is the loftiest summit in the State. The scenery of Lake Champlain, Lake George, and the Hudson is justly celebrated for its picturesque beauty. In population, wealth, and the extent of its public improvements, New York ranks first among the States. Long Island and Staten Island form part of the State.

(a.) **Chief Cities.**—**Albany** (76,000), the capital, is situated on the Hudson, 150 miles above New York, at the eastern terminus of the Erie Canal. It is the seat of a university, of a military academy, and of the Dudley Observatory. Its transit trade is extensive.

**New York** (912,322), called the Empire City, is situated on Manhattan Island, at the mouth of the Hudson River, and is the chief commercial city in the United States. It was founded by the Dutch in 1609. It has two outlets to the Ocean, viz.: one by Long Island Sound, and the other by the Narrows at Staten Island. It is abundantly supplied with pure water, brought a distance of forty miles by the Croton Aqueduct. Broadway, with its shops and extensive hotels, is a fashionable promenade; but Wall street, with its banks, custom-house, and exchange, is the great centre of business. Parks and squares are numerous in the upper part of the city, where the private residences predominate. It is the seat of a university.

**Brooklyn** (396,000), on Long Island, opposite New York, contains a United States navy yard. In size it ranks as the third city in the Union.

**Buffalo** (118,000), on Lake Erie, at the western terminus of the Erie Canal, is the chief forwarding place for western commerce to New York. It has a ship yard and iron foundries.

**Rochester** (62,000), seven miles from the mouth of the Genesee River, is an important manufacturing city and the seat of a university. From its large milling interests it is called the Flour City.

**Oswego** (21,000), on Lake Ontario, at the mouth of the Oswego River, is an active grain port, and is noted for the manufacture of flour.

**Ogdensburg** (10,000), on the St. Lawrence, has an extensive lake trade.

**Troy** (46,500), at the head of steamboat navigation on the Hudson, is a commercial city, and is noted for its iron works. It is the seat of a university.

**Poughkeepsie** (20,000), on the left bank of the Hudson, is the seat of Vassar Female College.

**West Point**, on the Hudson, is the seat of the United States Military Academy.

**Utica** (29,000), on the Mohawk River, is a manufacturing city, and the seat of Hamilton College.

**Syracuse** (43,000), at the junction of the Erie and Oswego canals, has the most extensive salt works in the United States.

**Auburn** (17,200), west of Syracuse, has a Presbyterian College, and a State Reformatory Prison.

**Binghamton** (13,000), in the south of the State, is a manufacturing city with large coal trade. It is the seat of the State Inebriate Asylum.

**Elmira** (16,000), west of Binghamton, is a railroad centre, with a large trade.

**Saratoga**, north of Albany, is a fashionable watering place.

(B.) **Pennsylvania**, called the Keystone State, is a large, compact State, lying south of New York. Though inland it has easy access to the ocean by the Delaware River and Chesapeake Bay. The principal branches of the Alleghany Mountains divide the State into three sections, watered by the Delaware, Susquehanna, and Alleghany Rivers. Coal, iron, and petroleum, the great staple products, are found in abundance. These, with flour, Indian corn, and butter, form the chief articles of commerce. The State is called after William Penn, an English Quaker, who made an honorable treaty with the Indians for the site of his settlement.

(b.) **Chief Cities.**—**Harrisburg** (25,000), the capital, is situated on the Susquehanna.

**Philadelphia** (674,000), 100 miles from the sea, at the confluence of the Delaware and the Schuylkill, is the first city in the United States in the value of its manufactures, the second in population, and the fourth in the extent of its foreign commerce. It was founded by William Penn in 1682. During the revolution it was the capital of the United Colonies. In the Old State House, the Declaration of Independence was adopted by the Colonial Congress in 1776. Its public buildings are handsome, especially Girard College. It is the seat of a United States navy yard and of the mint. It is the principal coal market in America. Its Fairmount Park contains 2000 acres.

**Pittsburg** (86,000), sometimes called the Iron City, or the Birmingham of America, at the confluence of the Alleghany and Monongahela rivers (which here form the Ohio River), in the centre of a coal and iron region, is the gate of commerce and the chief seat of the iron manufactures of the United States, and also the largest market for petroleum and bituminous coal in the Union. Shipbuilding is extensively carried on.

**Alleghany City** (53,200), on the Alleghany River, opposite Pittsburg, has extensive iron and glass works, and a large coal trade.

**Scranton** (35,000), on the Lackawanna River, in the anthracite coal region, has an active trade in coal and iron.

**Reading** (34,000), on the Schuylkill, in a rich farming region, is an important railway centre.

**Lancaster** (20,000), west of Philadelphia.

**Erie** (12,000) is a well situated port on Lake Erie.

(C.) **New Jersey**, called the Garden State, is separated from Pennsylvania by the Delaware River, and lies between that State and the Atlantic. Its rivers are unimportant; and except the northern Alleghany ridge (the Schooley), and the Palisades (on the Hudson), it is not mountainous. Along the Atlantic coast the soil is sandy, but near the Delaware river it is richer. New Jersey is principally an agricultural State, and is noted for its fruits and vegetables. Its mineral resources are valuable, and consist chiefly of iron and zinc. It has some fine canals. The railway route from New York to the south is through this State.

(c.) **Chief Cities.**—**Trenton** (22,800), the capital, on the Delaware, above Philadelphia, is the head of inland navigation. It is noted for its iron works and porcelain kilns. Here Washington gained one of his victories over the British forces in 1776.

**Newark** (105,000), the largest city in the State, on the Passaic River, nine miles from New York, has large manufactures of India rubber and leather goods, jewellery, and zinc paint.

**Jersey City** (82,500), on the Hudson River, opposite New York, is noted for its manufactures and commerce.

**Paterson** (33,600), seventeen miles from New York, has large manufactures of cotton thread, silk, and paper.

**New Brunswick** (20,000) is the seat of Rutgers' College, and **Princeton** of Princeton College.

**Camden** (20,000), opposite Philadelphia, has ship yards and iron foundries.

**Cape May** and **Atlantic City** are resorts for sea-bathing.

(D.) **Delaware**, which gives its name to the river and the fine frontier bay, occupies half the peninsula lying between the Chesapeake and Delaware bays. It is the second smallest State in the Union. An extensive cypress swamp lies along its south-eastern boundary, and extends into Maryland. In the northern part of the state, a canal connects Chesapeake and Delaware bays. The soil is productive. The inhabitants are descendants of the Swedes, Finns, and English.

(d.) **Chief Cities.**—**Dover** (4000), the capital, on Jones River, near the middle of the State, is a small town.

**Wilmington** (31,000), the largest city of Delaware, is situated on the Brandywine River. It is the chief port of the State, and contains a United States arsenal. It is noted for its numerous flour, paper, and powder mills, and for its shipbuilding. Here a battle was fought in 1777, between the British under Lord Howe, and the Americans under Washington.

**Delaware** is on Delaware Bay.

(E.) **Maryland** lies south of Pennsylvania, and is intersected by Chesapeake Bay. The portion of the State lying east of the bay is called the Eastern Shore. The Potomac River, forming its southern and south-western boundary, separates it from Virginia. Every part of the State is thus easy of access by water. It is crossed in the central and western parts by ranges of the Alleghany Mountains. The eastern part of the State is low and level. Maryland was colonized by Lord Baltimore in 1634, and was named in honor of Henrietta Maria, Queen of Charles I. Tobacco, Indian corn, wheat, iron, and coal are its chief products.

(e.) **Chief Cities.**—**Annapolis** (5000), the capital, is situated on the Severn, near Chesapeake Bay. It was named in honor of Queen Anne. It is the seat of St. John's College and of the United States Naval Academy. It has fine public buildings. The Old State House in which Congress was once held contains the room in which General Washington resigned his commission in the army.

**Baltimore** (296,354), on a branch of the Patuxent River, near the head of Chesapeake Bay, is the third city in the Union in foreign commerce, and the sixth in population. It has the principal tobacco, flour, and oyster markets in the United States, and is largely engaged in manufactures and shipbuilding. It is noted for its public buildings, monuments, and fountains. It is sometimes called the Monumental City.

**Cumberland** (8000), the second of the State, situated on the Potomac, is noted for its coal trade.

(F.) **Virginia**, called the Old Dominion, was the first English settlement in America, in 1607. It was so named in honor of Elizabeth, Virgin Queen of England. It lies south of Maryland. A ridge of the Alleghany separates the rivers flowing into the Atlantic from those forming the tributaries of the Ohio. The Great Valley of Virginia, between the Blue Ridge and the Alleghany Mountains, is noted for its fertility. The Great Dismal Swamp, on its south-eastern boundary, extends into North Carolina. The chief products are tobacco, iron, and salt. The Virginia sulphur springs are noted for their medicinal qualities. General Washington was born in this State.

(f.) **Chief Cities.**—**Richmond** (51,000), the capital, is beautifully situated on James River, 150 miles from the sea. It was the seat of the Confederate Government during the Civil War. It is noted for its flour mills, tobacco factories, iron works, and extensive commerce.

**Norfolk** (19,200), near the mouth of James River, is the principal seaport.

**Portsmouth** (10,500), opposite Norfolk, is noted for its fine harbor, navy yard, and naval hospital.

**Petersburg** (10,000), on the Appomattox, has tobacco and cotton factories.

**Alexandria** (13,500), on the Potomac, is a watering place, and has a large trade in flour and tobacco.

**Mount Vernon**, on the Potomac; here General Washington was buried.

(G.) **West Virginia** lies west of Virginia. It is a mountainous State. Several ridges of the Alleghany cross the eastern part, and the western slopes towards the Ohio and the Big Sandy River. The principal productions are corn, wheat, and tobacco. Coal and iron are abundant, and there are numerous salt springs and oil wells. The State was formed out of Virginia in 1862.

(g.) **Chief Cities.**—**Wheeling** (20,000), the capital, is situated on the Ohio, in the Pan Handle. It is noted for its iron works and its commerce.

**Charleston**, on the Great Kanawha, was formerly the capital.

**Parkersburg**, on the Ohio, is an active business centre.

**Harper's Ferry**, 50 miles above Washington, where the Potomac breaks through the Blue Ridge, is celebrated for its fine scenery. It contains a United States arsenal.

## III. THE SOUTH ATLANTIC AND GULF STATES.

1. **Noted For.**—These States are chiefly noted for their products of cotton, tobacco, rice, and sugar, and for their negro population.

2. **Position.**—The South Atlantic and Gulf States extend along the coast, from Chesapeake Bay to the mouth of the Rio Grande. Nearly all Louisiana and the whole of Texas lie west of the Mississippi River.

3. **Climate.**—The summer is long and hot, and the winter mild. Except in north-western Texas, the climate is very moist. The southern part of Texas and Florida have the rainy and dry seasons common to hot countries.

4. **States.**—(A.) **North Carolina**, called the Old North State, lies south of Virginia. It was originally named after Charles IX. of France and afterwards after Charles I. of England. The coast region is a low swampy plain extending 60 miles inland. The Pine Barrens lie to the west of the littoral plain and occupy a breadth of 50 miles of undulating surface. The Blue Ridge crosses the State in the west. The Black Mountains at the south end of the Blue Ridge are the loftiest in the Appalachian System. Highest summit, Mount Guyot, 6476 feet. The Alleghany Mountains form the western boundary of the State, separating it from Tennessee. The principal rivers rise in the Blue Ridge, viz.: the Roanoke (260 miles), which enters Albemarle Sound, the Tar (200 miles) and the Neuse (300 miles), which enters Pamlico Sound, and Cape Fear River (300 miles), which enters the sea at Cape Fear. The Great Dismal Swamp lies in the north-eastern part of this State and the south-eastern part of Virginia. It is 30 miles long and 10 miles wide. The Hatteras Banks, enclosing Pamlico Sound, end in Cape Hatteras, which is the most dangerous point to navigators on the North Atlantic coast. The chief products of North Carolina are turpentine, tar, pitch, and rosin. It yields tobacco, cotton, indigo, Indian corn, and rice; also gold, copper, iron, and coal.



SCRAPING CRUDE TURPENTINE.

(a.) **Chief Cities.**—**Raleigh** (10,000), the capital, is near the Neuse River.

**Wilmington** (13,500) is the chief port. **New Bern** (5800) is on the Neuse.

**Beaufort** has a good harbor, and is the only port on the coast.

**Fayetteville**, on Cape Fear River, has a United States army.

(B.) **South Carolina**, called the Palmetto State, is triangular in shape. The coast is low and swampy, but the interior is elevated towards the centre, and mountainous in the west. The principal rivers are the Great Pedee, the Santee, and the Savannah (450 miles), the latter forming the boundary between South Carolina and Georgia. It has one University, fourteen Colleges, and over seven hundred and fifty public Schools. Education is largely supported by the State, and forms a leading feature of the people. Granite, marble, mica-slate, soapstone, porcelain, clay of a fine quality, yellow ochre, limestone, and slate for whetstones are in great abundance. Gold, iron and lead are found among the treasures. Its chief productions are rice (for which it is the leading State), cotton, Indian corn, indigo, and lumber. The islands on the coast produce the celebrated long-fibred sea-island cotton, called Long Staple. The short cotton is called upland.

(b.) **Chief Cities.**—**Columbia** (9300), the capital, on the left bank of the Congaree River, is the seat of South Carolina College, and the Southern Theological Seminary.

**Charleston** (40,000), on the coast, is the largest city and the chief seaport. It is defended by Forts Sumpter and Moultrie, and is one of the chief commercial cities of the South. It has a fine harbor, and is a place of extensive trade. The city is well laid out, and the streets are planted with trees.



RICE PLANTING.

(C.) **Georgia**, so named in honor of George II. of England, lies south-west of South Carolina, from which it is separated by the Savannah River. It is the most southerly of the thirteen original States. Flat, sandy islands, which yield the long-staple cotton, skirt the coast. The surface is low and level on the sea coast, undulating and hilly in the centre, and mountainous on the north-west. The extensive Okefinokee swamp, on its southern boundary, extends into Florida. The principal rivers are the Savannah, the Ogeechee, the Altamaha, with its branches, and the Saltilla, flowing into the Atlantic; and the Chattahoochee, forming part of the western boundary, flowing into the Gulf of Mexico. The State has one University, thirty-two Colleges, about eighteen hundred public Schools, and a large number of Institutes for females. The chief products of Georgia are rice, cotton, tobacco, corn, and sweet potatoes. Gold, iron, coal, marble, and granite abound in the mountains.



RICE, WITH A GRAIN MAGNIFIED.

(c.) **Chief Cities.**—**Atlanta** (22,000), the capital, near the Chattahoochee River, is an important railroad centre.

**Savannah** (28,000), near the mouth of the Savannah River, is the chief commercial city and the principal seaport. It has numerous public squares.

**Augusta** (15,400), also on the Savannah, is an important manufacturing and commercial city.

**Macon** (10,800), on the Ocmulgee River, is the centre of an extensive cotton trade.

**Columbus** (7400), on the Chattahoochee, is largely engaged in the manufacture of cotton goods.

**Milledgeville**, the former capital, is on the Oconee River, and is surrounded by a beautiful and fertile cotton country.

(D.) **Florida**, called the Land of Flowers, is a great peninsula, south of Georgia. Though its coast line is extensive, it has but few good harbors. There are no mountains, but a long range of hills extends through the State. The principal rivers are the St. Mary's, which forms part of the boundary between Florida and Georgia, the St. John's, which flows north into the Atlantic, the Pease River, the Suwanee, the Appalachicola (formed by the union of the Chattahoochee and Flint at the northern boundary), the Choctawhatchee, and the Conecuh, flowing into the Gulf of Mexico. In the southern part of the State are the Everglades, an extensive marsh or shallow lake, studded with numerous islands. Along the rivers the soil is fertile, and, being near the tropics, vegetation is luxuriant. The chief productions are cotton, sugar cane, rice, tobacco, oranges, lemons, figs, and pine apples. Cedar, pine, and live oak are found in the State. On the southern coast, navigation among the Keys, or low coral islands, is dangerous, and wrecks are frequent. Sponge, which grows on the coral reefs, is a valuable export. The climate of Florida is hot in summer, and mild in winter.

(d.) **Chief Cities.**—**Tallahassee** (2000), the capital, in the centre of northern Florida, has many fine public buildings.

**Jacksonville** (7000), on the St. John River, is the largest city.

**St. Augustine**, two miles from the Atlantic, on an inlet, is the oldest city in the United States, having been founded by the Spaniards in 1605.

**Key West**, on an island of the same name, near Florida Strait, is a place of commercial importance, and exports salt and sponges. It is a United States naval station, and commands the entrance to the Gulf of Mexico. It is the most southerly town in the United States.

**Appalachicola**, at the mouth of the river of the same name, ships large quantities of cotton.

**Pensacola**, at the extreme western part of the State, on Pensacola Bay, has the best harbor on the Gulf. It is a United States naval station.

(E.) **Alabama** lies west of Georgia. The Alleghany Mountains terminate in this State. These mountains give to the northern part of the State a picturesque appearance. Towards the Gulf of Mexico the surface is a dead level. The Alabama and the Tombigbee flow southward through the State, and, uniting, form the Mobile River, which enters Mobile Bay. The Tennessee flows through the northern part of the State. The State is rich in mineral treasures, particularly in coal, iron, limestone and marble. In the principal cities and towns, are manufactories of cotton, flour, turpentine, carriages and leather. It has one University, seventeen Colleges, and about two thousand public Schools. Cotton and sugar are the staple products.



PICKING COTTON.

(e.) **Chief Cities.**—**Montgomery** (11,000), a flourishing city, the capital, on the Alabama River, exports cotton.

**Mobile** (32,000), the largest city, on Mobile River, is the chief commercial port. In the export of cotton it ranks next to New Orleans.

**Selma**, on the Alabama River, is surrounded by a rich and populous district. It has a cotton depot.

**Tuscaloosa**, on the Black Warrior River, is a cotton depot and the seat of the State University. It is noted for its literary institutions and active trade.

**Huntsville**, a thriving town, in the northern part of the State. It has two seminaries for females.





COTTON—PLANT, FLOWER AND POD.

(F.) **Mississippi** lies west of Alabama, and takes its name from the Mississippi River, which forms its western boundary. The chief tributaries of the Mississippi in this State are the Yazoo and the Big Black. The Leaf and Pearl flow to the Gulf of Mexico. From the Gulf inland for 100 miles the surface is level, and is covered with pine forests interspersed with extensive marshes; but toward the north it is hilly. The soil is fertile. Mississippi ranks as the chief State in the production of cotton. Sugar, rice, and Indian corn are produced in great abundance. The olive and the fig flourish in the southern part of the State.

(G.) **Chief Cities.**—**Jackson** (4000), the capital, on Pearl River, is in the central part of the State.

**Vicksburg** (12,400), on the Mississippi, has a large commerce and is a great cotton mart.

**Natchez** (9000), the City of the Bluffs, on the Mississippi, is the chief port in the State for shipping cotton.

(G.) **Louisiana**, sometimes called the Creole State, lies south-west of Mississippi, and is one of the most important States. The surface is level, but towards the west there are a few low hilly ranges. The Mississippi forms the eastern boundary to the northern half of the State; the southern half includes the delta, the outlet, and both sides of the noble river for 250 miles inland from its mouth. To protect the country from being flooded by the overflow of the river, great embankments or dykes have been constructed both above and below New Orleans. The breaking of the water through the embankments, or levees, as they are termed, is called a crevasse. The great delta, which forms one-fourth of the area of the State, is subject to inundations in spring. The Red River flows south-east through the State and joins the Mississippi. The Pearl River on the east and the Sabine River on the west are boundary streams. Sugar, cotton, rice, and tropical fruits are the chief products. Louisiana was settled in 1699 by Iberville, a native of Montreal. It was purchased from France in 1803.

(G.) **Chief Cities.**—**New Orleans** (191,000), the capital, called the Crescent City, stands on a bend of the Mississippi, 100 miles from its mouth. It is the greatest cotton port in the world, and has also an extensive trade in sugar, molasses, tobacco, and flour. Its levees or quay, four miles long, forms an embankment to the river, and is a place of great activity. The public buildings are numerous and handsome; but, owing to the prevalence of yellow fever in summer, the private residences of the wealthy inhabitants are chiefly out of the city.

**Baton Rouge** (6500), the former capital, 200 miles inland, on the Mississippi, is a shipping port. **Shreveport** (4600), on Red River, is a cotton centre.



PRAIRIE-DOG VILLAGE.

(H.) **Texas**, called the Lone Star State, the largest State in the Union, and originally a separate republic, lies west of Louisiana. The chief boundary rivers are the Red on the north, the Sabine on the east, and the Rio Grande, which separates it from Mexico, on the south-west. The principal rivers belonging wholly to Texas are the Brazos (950 miles), and the Colorado (600 miles), both from the Llano Estacado, or Staked Plain, an elevated tableland in the interior. The soil is highly productive. Except at the north and north-west, where it is mountainous, the climate is tropical, and vegetation luxurious. Cotton, sugar, corn, tobacco, and rice are the principal products. The State has valuable deposits of iron, silver, lead, copper, and coal. Texas is the foremost State in stock-raising. The prairies abound in bison, wild horses, or mustangs, prairie dogs, wild deer, and other game. Camels have been introduced into Texas.

(A.) **Chief Cities.**—**Austin** (5000), the capital, on the Colorado, is 200 miles inland.

**Galveston** (15,800), on an island of the same name, at the mouth of Galveston Bay, is the chief seaport.

**San Antonio** (12,500), south-west from Austin, is the largest city in the interior.

**Houston** (9400), the former capital, on the Buffalo, is the chief railway centre.

**Matagorda** and **Corpus Christi** are commercial ports.

#### IV. THE CENTRAL STATES.

1. **Noted For.**—These States, fourteen in number, are noted for their extent, their prairies, and their agricultural and mineral products.

2. **Position.**—Seven of them—Wisconsin, Michigan, Illinois, Indiana, Ohio, Kentucky, and Tennessee—lie to the east of the Mississippi River; and seven of them—Minnesota (in part), Iowa, Missouri, Arkansas, Nebraska, Kansas, and Colorado—lie to the west of the Mississippi.

3. **Physical Features.**—With the exception of Western Colorado, which is crossed by the Rocky Mountains, this section has no high mountains. The Cumberland Mountains, the western range of the Alleghany System, forming the eastern boundary of Kentucky, and separating it from Virginia, extend into Tennessee. The Alleghany Range, under various names, forms the boundary between Tennessee and North Carolina. The Height of Land in Northern Minnesota is the beginning of the water-parting between the northern and southern slopes of the Great Central Plain of the continent. The Ozark and Boston Mountains are low ranges between the Missouri and Arkansas Rivers. Four of the five Great Lakes, viz., Superior, Michigan, Huron, and Erie, border the States in the north of this section; and the principal rivers belong to the Mississippi System.

4. **States East of the Mississippi.**—(A.) **Wisconsin** lies between Lake Michigan and the Mississippi River. Its surface is an undulating plateau towards the north. In the south there are extensive prairies and timber lands. In the interior there are many beautiful lakes, the largest of which is Lake Winnebago. The principal rivers are the Chippewa, Black, and Wisconsin, tributaries of the Mississippi. The lead, copper, and iron mines of the State are highly productive. The chief agricultural products are wheat and Indian corn.

(a.) **Chief Cities.**—**Madison** (9000), the capital, near Rock River, is the seat of the State University.

**Milwaukee** (71,500), on Lake Michigan, is the largest city. It has an extensive trade in grain, lumber, and metallic ore.

**Oshkosh** (12,600), on the west shore of Lake Winnebago, and **Fond du Lac** (12,700), at the head of the Lake.

**Janesville** (8800), on Rock River, manufactures agricultural implements.

(B.) **Michigan**, called the Peninsular State and Lake State, lies north of Ohio and Indiana, and north-east of Wisconsin. It consists of two peninsulas. The northern peninsula, lying between Lake Superior on the north, and Lakes Michigan and Huron on the south, is rocky, and abounds with copper. The Pictured (sandstone) Rocks on the coast of Lake Superior, worn by time, present the appearance of old ruins. The southern peninsula, lying between Lake Michigan on the west, and Lakes Huron, St. Clair, and Erie on the east, slopes towards the east and the west, and is generally fertile. Michigan is admirably situated for internal trade. Except Florida, its coast line is longer than that of any other of the States. The Strait of Mackinaw, or Michilimackinac, forms the outlet of Lake Michigan; and the St. Mary's River that of Lake Superior. Isle Royale, in Lake Superior, belongs to Michigan. Mackinaw Island, at the north end of Lake Michigan, was once noted in Canadian history as a military post. The State possesses exceedingly rich copper mines, and valuable deposits of iron and coal, and very productive salt beds. It is the foremost State in the manufacture of lumber. The chief agricultural products are wheat, corn, and oats.

(A.) **Chief Cities.**—**Lansing** (7500), the capital, on Grand River.

**Detroit** (101,200), the City of the Straits, on the River Detroit, opposite Windsor, is connected with Canada by the Grand Trunk and Great Western Railways. It is one of the five great lake ports and is extensively engaged in commerce and shipbuilding.

**Port Huron** (2,200), on the River St. Clair, opposite Sarnia in Ontario, has a large lumber trade.

**East Saginaw** (17,000) and **Saginaw City** (10,000), on opposite sides of the Saginaw River, fifteen miles from its mouth, have extensive salt works.

**Grand Rapids** (26,000), on the Grand River, 30 miles from Lake Michigan, is noted for its lumber.

**Kalamazoo** (11,700), on the river of the same name, is the seat of the Michigan College for Females, and has a large trade and extensive manufactures.

**Jackson** (13,900), south of Lansing, is a railroad centre and the seat of the State prison.

**Adrian** (8800), in the southern part of the State, is the centre of an active trade.

**Ann Arbor** (6700), on Huron River, is the seat of the State University, and **Ypsilanti** (5200), on the same river, of the State Normal School.

(C.) **Illinois**, sometimes called the Prairie State, lies south of Wisconsin. The surface of the State is generally a vast undulating prairie, sloping to the south. It is bounded on the west by the Mississippi River, which separates it from Iowa and Missouri; on the south by the Ohio; and on the east in part by the Wabash. At the north-east it borders on Lake Michigan. Opposite Alton, on its western boundary, the junction of the Missouri and Mississippi rivers takes place; and at Cairo, at its southern point, the junction of the Ohio and Mississippi. It is a fertile State, and is famed for its large production of corn and wheat. It has extensive coal-fields. Lead and iron abound, and salt is manufactured in large quantities.

(a.) **Chief Cities.**—**Springfield** (17,300), the capital, near the middle of the State, is an important railway centre.

**Chicago** (400,000), on Lake Michigan, at the mouth of the Chicago River, is the largest city on the northern lakes. It is one of the most important grain markets in the world, and is the chief pork and lumber market in America. It is a great railway centre and shipping depot. It has been chiefly built since 1830. In 1871 a fire destroyed 17,450 houses. The city is supplied with water from Lake Michigan, through a tunnel which runs two miles under the lake.

**Quincy** (24,000), on the Mississippi, is largely engaged in river trade and the manufacture of agricultural implements.

**Peoria** (22,800), on the Illinois River, is a flourishing city.

**Galena**, on the Galena River, near the Mississippi, is noted for its lead mines.

(D.) **Indiana** lies east of Illinois, and is separated from Kentucky by the Ohio River. It is watered by tributaries of that river. The Wabash forms the greater part of its western boundary. The surface is undulating, and diversified by prairies and hills. The soil is generally good. Coal and iron are the principal minerals. Agricultural products and domestic animals are the chief staples.

(d.) **Chief Cities.**—**Indianapolis** (48,000), the capital, on the west branch of White River, is the centre of numerous railroads.

**Madison** (10,700), **New Albany** (15,400), and **Evansville** (21,900), on the Ohio, are manufacturing cities, with a large river trade.

**Terre Haute** (16,000), on the Wabash River, is a railroad centre and great pork market. It is the seat of the State Normal School.

**Lafayette** (13,500), on the Wabash, is the chief grain market in the State, and the seat of Purdue University.

**Fort Wayne** (17,700), at the head of the Maumee River, is the business centre of a fine agricultural district.

(E.) **Ohio**, called the Buckeye State, lies east of Indiana. Lake Erie forms the greater part of its northern boundary, and the Ohio River flows along its south-eastern and southern border, separating it from West Virginia and Kentucky. It is not mountainous, but in the centre a table-land, 1000 feet above sea-level, divides the rivers running north to Lake Erie from those flowing into the Ohio. The soil is fertile. It surpasses every other State in the production of wool and wine, and is second only to Pennsylvania in the production of coal. It is noted also for iron, salt, wheat, Indian corn, and pork.

(e.) **Chief Cities.**—**Columbus** (31,000), the capital, on the Scioto River, is a manufacturing city, and contains many fine buildings.

**Cincinnati** (276,000), on the Ohio, at the south-west corner of the State, is the third city of the Central States in point of population. As the chief commercial city of the Ohio valley it is called the Queen of the West. Next to Chicago, it is the greatest pork market in America. It is noted for its astronomical observatory, wine manufacture, iron foundries, and cotton mills.

**Portsmouth** (10,500), on the Ohio, is noted for its iron works.

**Cleveland** (93,000), on Lake Erie, is well laid out, and from its numerous avenues is called the Forest City. It is one of the five great lake ports, and has an excellent harbor.

**Sandusky** (13,000), on Lake Erie, the great fish market of the State, is an important lake port.

**Toledo** (31,600), at the north-west, near the mouth of the Maumee River, has extensive grain and lumber trade.

**Dayton** (10,500), in the south-west, on the Miami River, an important railroad centre, is noted for its iron works.

**Zanesville** (10,000), on the Muskingum River is noted for iron manufactures and paper mills.

(F.) **Kentucky** lies south of Indiana and Ohio, from which it is separated by the Ohio River, which forms its northern boundary. The Mississippi flows along its western border, separating it from Illinois and Missouri. On the east, the Big Sandy River separates it from West Virginia, and on the south-east the Cumberland Mountains separate it from Virginia. It is highly fertile, and surpasses every other State in the production of tobacco, hemp, flax, and whisky. It is noted also for wheat and Indian corn. From the celebrated Mammoth Cave, at the south, nitre is obtained. The more important minerals found are iron, coal, and salt.



COTTON PLANT.

(f.) **Chief Cities.**—**Frankfort** (8000), the capital, is situated on the Kentucky River, amidst bold scenery.

**Louisville** (100,800), on the Ohio River, called Falls City from the neighboring rapids on the river, which are avoided by a canal, two and a half miles long, cut through the solid rock, has an immense trade in tobacco, pork, flour, and hemp.

**Covington** (24,500), and **Newport** (15,000), situated opposite Cincinnati, at the mouth of the Licking River, have iron works and cotton factories.

**Lexington** (14,800), south-east of Frankfort, has a large inland trade.

(G.) **Tennessee** lies south of Kentucky. It has three physical divisions. East Tennessee lies between the Alleghany Mountains and the Cumberland Mountains; Middle Tennessee between the Cumberland Mountains and the Tennessee River; and West Tennessee between the Tennessee River and the Mississippi. The scenery of East Tennessee is picturesque. The chief products of the State are cotton, tobacco, hemp, iron, coal, and salt.

(g.) **Chief Cities.**—**Nashville** (26,000), the capital, on the Cumberland River, is a fine city, and has a large trade. It is the seat of three universities.

**Memphis** (40,200), on a high bluff of the Mississippi, is an important cotton depot. It is the southern outlet of the State, and, next to New Orleans and St. Louis, is the largest city on the Mississippi.

**Knoxville**, on Holston River, and **Chattanooga**, on the Tennessee, are the chief places in East Tennessee.

5. **States West of the Mississippi.**—(A.) **Minnesota** lies west of Lake Superior and Wisconsin. The Red River of the north forms part of its western boundary. Pigeon River and Rainy River are boundary rivers to the north. The noble Mississippi has its source in Itasca Lake, on the height of land, in this State. The surface is chiefly undulating prairie, sloping to the east. The lakes and rivers are numerous, and the water is singularly pure. There are extensive pine forests in parts of the State. Wheat is the staple product. Copper, iron, and coal have been found.

(a.) **Chief Cities.**—**St. Paul** (100,000), the capital and largest city, on the Mississippi, is the chief commercial centre of the State.

**Minneapolis** (13,000), at the head of navigation on the Mississippi, is noted for its great lumber and flour trade.

**St. Anthony** (7000), opposite Minneapolis, with which it is connected by a bridge, commands a fine view of St. Anthony's Falls, at which the river descends eighteen feet. It is the seat of the State University.

**Winona** (7200), on the Mississippi, at the southern part of the State, has a great lumber and wheat trade. It is the seat of a State Normal School.

**Duluth** (1000), at the western end of Lake Superior, is the terminus of the Northern Pacific Railroad.

(B.) **Iowa** lies south of Minnesota, between the Missouri on the west and the Mississippi on the east. Its surface, chiefly a rolling prairie, is watered by numerous rivers, the principal of which is the Des Moines. It ranks as the second State in the Union for the production of wheat and Indian corn. It is noted also for woollen goods, lumber and farm implements. Coal, lead, iron, and gypsum are abundant.

(b.) **Chief Cities.**—**Des Moines** (12,000), the capital, is on the Des Moines River, a tributary of the Mississippi.

**Dubuque** (18,400), on the Mississippi, is the principal depot of the lead mining district.

**Davenport** (30,000), on the Mississippi, is a manufacturing city with a large river trade.

**Burlington** (15,000), on the Mississippi, is a flourishing city.

**Keokuk** (12,700), on the Mississippi, at the south-eastern angle of the State, is largely engaged in pork packing.

**Council Bluffs** (10,000), on the Missouri, is a great railroad centre.

**Jones City** (6000), on the Iowa River, is the seat of the State University.

(C.) **Missouri** lies south of Iowa, and is separated from Illinois by the Mississippi River, into which the waters of the Missouri and its tributaries flow from the westward through the centre of the state. Prairies abound north of this river, but south of it the surface is broken and mountainous. At the south-eastern part of the State, there is a mountain of almost pure iron. Lead, coal, copper, tin, and salt are abundant. Indian corn, wheat, hemp, tobacco, cattle, and horses are the other chief products.

(c.) **Chief Cities.**—**Jefferson City** (4500), the capital, is situated on the Missouri.

**St. Louis** (311,000), on the Mississippi, 20 miles below the mouth of the Missouri, is the commercial capital of the Mississippi Valley. It is an important railway centre, a great iron mart, and the depot of the fur trade of the Rocky Mountains.

**Hannibal** (10,000), on the Mississippi, is a rising town.

**St. Joseph** (19,500), in the north-west, on the Missouri, is a manufacturing city.

**Kansas City** (32,000), on the Missouri, is a railroad centre; it is noted for its beef-packing establishments.

(D.) **Arkansas** lies south of Missouri, and west of Mississippi. It is nearly divided in two by the Arkansas River. Its north-west corner is traversed by the Ozark Mountains. The Boston Mountains lie to the north of the Arkansas. Inland from the Mississippi the surface is highly diversified; but the soil is not good except near the rivers. Cotton, corn, zinc, iron, lead, and coal are the chief products.

(d.) **Chief Cities.**—**Little Rock** (12,400), the capital and largest city, is on the Arkansas River. Its hot springs are celebrated.

**Fort Smith**, on the Arkansas, at the western boundary, is the second city.

**Pine Bluff**, on the Arkansas, and **Camden**, on the Washita, are thriving towns.

(E.) **Nebraska** lies west of Iowa, from which it is separated by the Missouri River, which forms the north-eastern and eastern boundary. The Platte runs through the State from west to east, and enters the Missouri at Plattsmouth. The surface is an undulating prairie, the only elevations being the Sand Hills in the north-west. In the western part of the State is an extensive tract known as the Bad Lands. Indian corn, wheat, oats, and tobacco are the chief products. Coal and iron are the chief minerals, and salt springs are numerous in the south-eastern part of the State.

(e.) **Chief Cities.**—**Lincoln** (5000) is the capital.

**Omaha** (16,000), on the Missouri, is the largest city. It is a commercial and railroad centre.

**Nebraska City** (1000), also on the Missouri.

(F.) **Kansas** lies south of Nebraska. It is an extensive undulating plain, drained by the Kansas and Arkansas Rivers, and their numerous tributaries. The soil is very fertile, except in the west, where there are some sandy places. Gypsum, coal, and iron are abundant. Wheat, corn, oats, and cattle are the chief products.

(f.) **Chief Cities.**—**Topeka** (6000), the capital, is on the Kansas River.

**Lawrence** (8300), also on the Kansas, is a flourishing trade centre.

**Leavenworth** (17,800), the largest city, is situated on the Missouri. It has a great river commerce, and is the seat of a State Normal School.

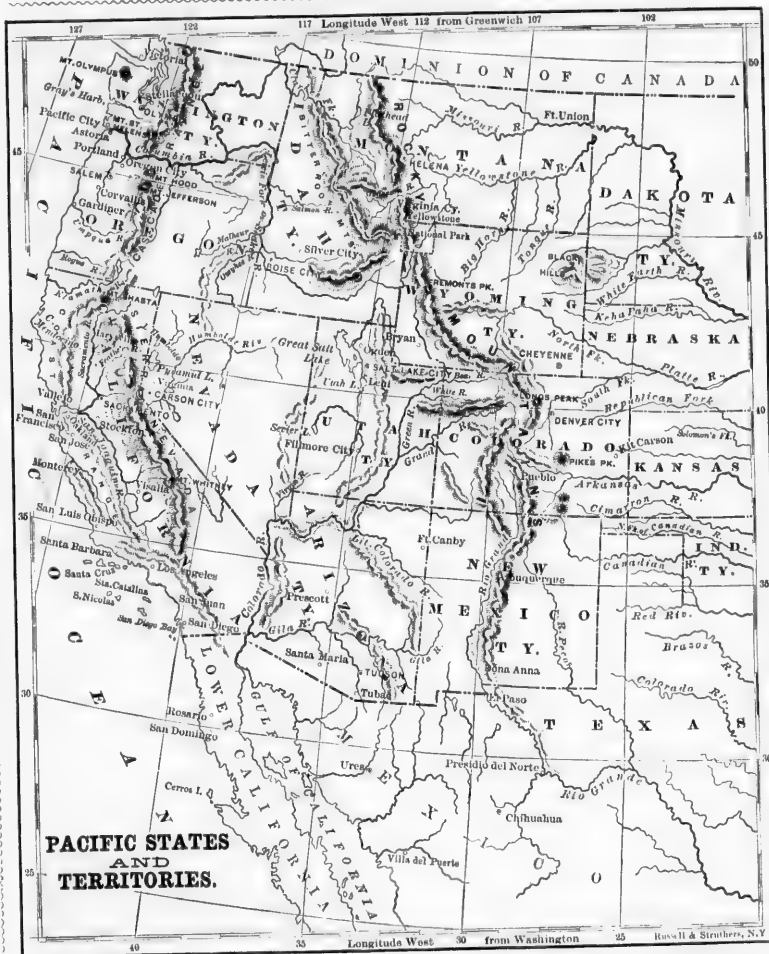
**Atchison** (7000), on the Missouri.

**Fort Scott** is the centre of a coal district in the eastern part of the State.

(G.) **Colorado** lies west of Kansas. The Rocky Mountains traverse the State from north to south, in a double chain. Between the ranges are four extensive valleys, called the Parks of Colorado, and distinguished as North Park, Middle Park, South Park, and San Luis Park. The eastern Range of the Rocky Mountains contains Long's Peak to the north, Pike's Peak near the centre, and Spanish Peaks to the south. The mountain scenery of western Colorado is grand. The eastern part of the State is an undulating plain. Timber is abundant in the Mountain region. The State is rich in gold, silver, and lead mines. Iron, coal, and salt are also found in large quantities.

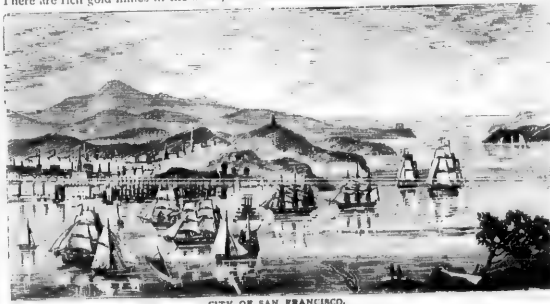
(g.) **Chief Cities.**—**Denver** (5000), the capital, on the South Platte River, is the centre of a rich mining district. It is 5000 feet above the level of the sea.

**Central City** and **Golden City**.



## V. THE PACIFIC STATES.

(A.) Oregon lies south of Washington Territory, on the Pacific coast. The Snake River forms the greater part of its eastern, and the Columbia River the greater part of its northern boundary. The coast is rocky, and is deficient in good harbors. The Coast Range, the Cascade, and the Blue Mountains divide it into four parts. Mounts Hood, Jefferson, and Pitt are the highest of the Cascade Range in Oregon. To the west of the Cascade Range the soil is fertile, especially in the valley of the Willamette, a tributary of the Columbia; but to the east the plateau region is sterile. Wheat, lumber, wool, and canned salmon are the chief exports. There are rich gold mines in the State, and coal and iron have been found.



CITY OF SAN FRANCISCO.

River. It is accessible for steamers and sailing vessels at all seasons of the year. Sacramento has a graded system of public schools. It is a mining depot for the great region of the South.

**San Francisco** (149,000), the chief commercial city, stands on San Francisco Bay, which is entered by a strait, four miles long and a mile wide, called the Golden Gate. It has a branch mint, and a United States navy yard.

**Oakland** (10,500), the former capital, on San Francisco Bay, lies opposite San Francisco.

**Benicia** (7000), on Karquenas Strait, has a naval arsenal. **Stockton** (10,000), in the San Joaquin Valley, is the trade centre for the southern mining districts.

**San Jose** lies near the head of San Francisco Bay.

**Los Angeles**, in the south, and **San Diego**, are near the Mexican frontier.

(C.) Nevada lies east of California. It occupies that part of the Great Basin which lies between the Sierra Nevada and the Humboldt Mountains. The Nevada desert is covered with sand, alkali, and sage brush. Fertile soil is found only in the valleys. The rivers are few and small. The lakes are salt, and have no outlet. Nevada is very rich in gold, silver, and lead. Coal, iron, and salt, are abundant.

(c.) **Chief Cities.**—**Carson City** (3000), the capital, is near Carson River.

**Virginia City** (10,000), on the Carson River, is the centre of a rich silver-mining district. It is 6000 feet above sea level. **Austin**, in the central part of the State, is on Reese River.

(a.) **Chief Cities.**—**Salem** (2000), the capital, is on the Willamette.

**Portland** (83,000), the largest city, is on the Willamette near its junction with the Columbia, and is a trade centre. **Astoria** is situated at the mouth of the Columbia.

(B.) **California** lies south of Oregon on the Pacific coast. The Sierra Nevada Mountains to the east traverse the entire length of the State, with a breadth varying from 30 to 60 miles. The highest summits of the Range are Mounts Shasta, Dana, Lyell, Tyndall, and Whitney. The coast range stretches along the Pacific coast to the west. In the north and in the south of the State these ranges unite, and enclose the fertile valley of the Sacramento and San Joaquin Rivers. East of the Sierra Nevada is a desert region.

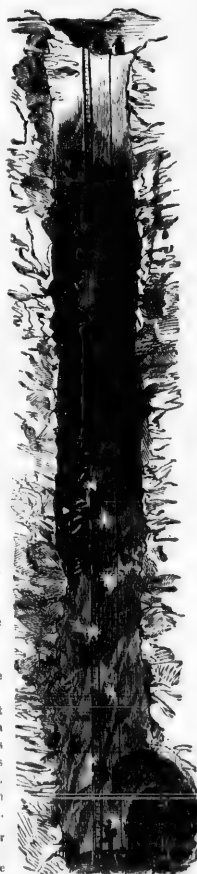
The Valley of the Yosemite is celebrated for its wild scenery. It is a chasm ten miles long and two miles wide, with perpendicular walls of granite towering to the height of from 2000 to 4000 feet, over which the Merced River descends in three leaps. The Yosemite Falls are of extraordinary grandeur, and are the loftiest in the world, being half a mile high—sixteen times higher than the Falls of Niagara.

The New Almaden quicksilver mines of California are, with those of Spain, the most celebrated in the world. The Big Tree Grove and the Geysers Valley are great curiosities. Calaveras Big Tree Grove contains a beautiful group of the *Sequoia gigantea*, called also Wellingtonia, and in the United States, Washingtonia. In this grove, the Father of the Forest is 120 feet in circumference at the base, 200 feet high up to the first branch, and 450 feet in total height.

There are over 750 public schools in the State, and 12 Colleges. Congress voted 6,500,000 acres of land towards their maintenance.

The climate is temperate along the coast, but hot in the interior. Gold and quicksilver are the chief minerals, but there are also valuable mines of silver, copper, tin, and coal. Cattle, wild horses, and deer, are numerous. The chief products are wheat, barley, fruit, and wine.

(b.) **Chief Cities.**—**Sacramento** (16,300), the capital, is on the Sacramento River.



SILVER MINE.

## VI. TERRITORIES.

(A.) **The District of Columbia** is an area of sixty square miles, on the banks of the Potomac River, 120 miles from its mouth. It was ceded by Maryland to the United States, as a site for the seat of the Federal or General Government. It was organized as a Territory in 1871.

(a.) **Chief Cities.**—**Washington** (109,000), the capital, is the metropolis of the United States. It is situated on the Potomac, and contains the Capitol, in which Congress assembles, and other public buildings, including the Smithsonian Institute (founded by James Smithson, an Englishman), the White House, or official residence of the President, the Treasury, and the Naval Observatory. The city was laid out by General Washington, who was the first President.

*Georgetown*, in the neighborhood of Washington, is a great shad and herring market.

(B.) **Dakota** lies west of Minnesota and south of Canada. The surface is broken by mountains and valleys. Herds of bison roam over its plains. The Missouri River crosses it from north-west to south-east. Along the rivers the soil is fertile. The Bad Lands occupy an extensive tract in the south-west. Between the north and south branch of the Big Cheyenne River rise the Black Hills, noted for their mineral wealth. Dakota is the home of the Sioux and the Mandan Indians.

(b.) **Chief Towns.**—**Yankton** (700), the capital, is on the Missouri. *Pembinia*, in the north-east corner of Dakota, on the Red River, is a trading place.

(C.) **Indian Territory** lies south of Kansas. It has been set apart by Congress for the Indians who have been removed from various States east of the Mississippi River. The tribes include the Cherokees, Creeks, Seminoles, Wapachas, Shawnees, Chickasaws, and Choctaws. The tribes have their own government. The soil of the territory is fertile, except the north-west portion, which forms part of the Great American Desert. The Red River, which forms the greater part of the southern boundary, and the Arkansas, with their tributaries, are the principal rivers.

(c.) **Chief Town.**—**Tahlequah**, the capital of the Cherokees, is the chief town.

(D.) **Montana** lies west of Dakota. The Bitter Root Range separates it from Idaho. It is traversed by the Rocky Mountains in the west, and by the Missouri River in an easterly direction. Its chief tributaries in Montana are the Milk River and the Yellowstone. The soil is fertile, and timber abundant. It possesses gold mines, and is rich in silver, iron, coal, and salt.

(d.) **Chief Towns.**—**Helena** (3000), the capital and largest city, is near the Missouri. *Virginia City*, in the Rocky Mountains, is an important mining town.

(E.) **Wyoming** lies south of Montana. It is a mountainous Territory. The Wind River Mountains cross it from north-west to south-east. Fremont's Peak, the highest, is 13,567 feet above sea level. In the northern part of the Territory are the Big Horn Mountains. The Missouri, Yellowstone, Platte, Colorado, and Snake Rivers have their sources in the Wind River Mountains. In the north-west portion of Wyoming is the greater part of the United States National Park, which occupies an area of nearly 3600 square miles, and is remarkable for its wonderful scenery. Wyoming has valuable mineral deposits. It is crossed by the Union Pacific Railroad.



YOSEMITE VALLEY, CALIFORNIA.

(e.) **Chief Towns.**—**Cheyenne City** (1450), the capital, near the Platte River, is a railroad centre. *Sherman*, 8262 feet above the sea, is the highest railroad station in the Rocky Mountains.

(F.) **New Mexico** lies south of Colorado. The Rocky Mountains traverse its western part, and form the water parting for the rivers flowing into the Gulf of California and into the Gulf of Mexico. East of the Rocky Mountains, the Territory slopes towards Texas, and forms part of the Llano Estacado. The Rio Grande intersects the Territory from north to south. Its fertile valley is 20 miles wide, and is bounded on the west by the Sierra Madre. Gold, silver, copper, iron, and salt, are abundant.

(f.) **Chief Towns.**—**Santa Fe** (7000), the capital, near the Rio Grande, stands on a plateau which is elevated about 7000 feet above the sea, and a short distance south-west of the base of a snow-capped mountain, which rises 5000 feet above the level of the town. It has an important overland trade. *Taos*, *Albuquerque*, and *Mezilla*, are small places in the valley of the Rio Grande.

(G.) **Idaho** lies west of Montana and Wyoming. It is separated from the former Territory by the Bitter Root Range. The surface is mountainous. The Snake River forms part of the western boundary. It has valuable gold and silver mines.

(g.) **Chief Towns.**—**Boise City** (1000), the capital, on Boise River, a branch of the Snake River. It became the capital of the territory in the latter part of 1864. Gold and silver are found in the vicinity.

*Florence*, near the Salmon River, and *Silver City*, are mining places.

(H.) **Utah** lies west of Colorado. Its rivers fall into lakes which have no visible outlet, the principal of which are Great Salt Lake to the north, and Sevier to the south of it. Except along the rivers the soil is not fertile. Great Salt Lake is shallow, and abounds in crystallized salt. The Wahsatch Mountains divide Utah into two nearly equal parts. The principal productions are cotton, oats, and barley. The grape and the peach thrive well. The summers are warm and the winters are mild. Utah has been the home of the Mormons since 1847.

(h.) **Chief Towns.**—**Salt Lake City** (13,000), the capital, on the Jordan River, which connects Great Salt Lake with Utah Lake. It was laid out in July, 1847, by a company of 143 Mormons. The climate of the valley in which the city stands is very salubrious, and the soil in the neighborhood is extremely fertile. The mountains which enclose the valley on the east side are covered with perpetual snow. Their summits are said to be about 10,000 feet (nearly two miles) above the level of the sea. It is the chief commercial centre.

*Ogden* is on the Union Pacific Railroad. *Provo*, on the east shore of Utah Lake, and *Fillmore*, on a branch of the Sevier, are growing places.

(I.) **Arizona** lies south of Utah. It is watered by the Gila and Little Colorado Rivers. The climate is hot and dry. Timber, grain, and cattle are the principal products. Various minerals, including gold, silver, and copper, are abundant. The soil is not very fertile.

(i.) **Chief Towns.**—**Tucson** (3000), the capital and largest city, is situated on Santa Cruz River. Its population is chiefly Spanish. *Prescott*, near the centre of the territory, is a rich mining district. *La Paz* is on the Colorado River.

(J.) **Washington** lies south of British Columbia, on the Pacific Coast. It is crossed by the Coast and the Cascade Ranges. Mount St. Helens, 15,750 feet, and Mount Rainier, 12,300 feet, two of the highest summits of the Cascade Range, are covered with perpetual snow. East of the Cascade Range the Territory is a grazing region; west of it the country is covered with dense forests of pine and cedar. The Columbia River waters the interior and forms the greater part of the southern boundary. Puget Sound extends inland 180 miles. Lumber is the chief export. Gold, silver, and coal, are abundant.

(j.) **Chief Towns.**—**Olympia** (1200), the capital, is at the head of Puget Sound. *Steilacoom*, on the east side of Puget Sound, is noted for its lumber and its fisheries.

(K.) **Alaska**, formerly Russian America, occupies the extreme north-west part of America. It was discovered and explored by a Russian expedition under Behring in 1741; and at subsequent periods settlements were made by the Russians at various places chiefly for the prosecution of the fur trade. In 1867 the whole Russian possessions in America were ceded to the United States for a money payment of \$7,200,000. The treaty was signed on 30th March, and ratified on 20th June, 1867; and on 9th October following the possession of the country was formally made over to a military force of the United States at New Archangel. The principal part of the Territory lies west of 141° West Longitude. A coast-land, about 50 miles in breadth, extends southward to the borders of British Columbia in 54° 40' N. Lat. Along the west coast there is a chain of mountains, of which Mount St. Elias, an active volcano, 19,500 feet, is the principal peak. The chief river is the Kwickpack, or Yukon, with its tributaries, the Porcupine and Tanana. Lakes are numerous: Iliamna, which drains into Bristol Bay, is the largest. The soil is sterile, and the climate severe; but fish and fur-bearing animals are plentiful. Salmon abounds in the rivers, and there are great banks along the shores, the favorite haunts of cod and other fish. From the great amount of rain and the want of heat, cereals grow but will not ripen, and vegetables do not thrive. Native grasses and berries grow plentifully, and the forests consist of cedar, spruce, larch, and fir of great size, also cypress and hemlock. Gold, silver, iron, coal, petroleum, and marble, have been found in the territory. The population is very limited, consisting of about 8000 whites and 15,000 Indians, with some Eskimos on the northern coast. The Indians are rapidly decreasing in number.

The Aleutian Islands consist of several groups lying between the Peninsula of Alaska and the Continent of Asia. They are rocky and volcanic, having some volcanoes in constant activity. Kodiak Island sends ice to California. The inhabitants (about 9000) are a mixture of Mogul Tartars, and North American Indians. They subsist mostly by hunting and fishing, vegetation being scanty and agriculture almost unknown.

Alaska is the only unorganized Territory. For government purposes it is joined to Washington Territory.

(k.) **Chief Town.**—**Sitka** (4000), formerly New Archangel, the most rainy place in the world, on Sitka Island, has a magnetic observatory. It has good salmon fisheries.



## MEXICO.

Mexico is derived from *Mexitli*, the Mars, or god of war, of the Aztecs, a tribe which is supposed to have migrated to Mexico from the Mississippi Valley, A.D. 1195. Area, about 744,000 square miles, equal to a square of 862 miles.

**1. Noted For.**—Mexico is noted for its numerous beautiful and massive ancient ruins and pyramids, indicative of ancient civilization, its numerous volcanoes, its rich silver and gold mines, its lofty mountains, and temperate climate.

**2. Boundaries.**—This republic is bounded on the north by the United States; on the east by the Gulf of Mexico and the Caribbean Sea; on the south by Central America and the Pacific; and on the west by the Pacific.



SCENE IN MEXICO.

**3. Physical Features.**—The Rocky Mountains, under the name of the Sierra Madre, traverse the country in various ranges, and give great diversity to the scenery and climate. The Rio Grande del Norte is the principal river, and also forms the north-eastern boundary.

**4. Bays and Gulfs.**—The principal gulfs are Mexico, Tehuantepec, and California; and the chief bays are Campechy, in the Gulf of Mexico, and Magdalena, Balenas, and Sebastian, on the Californian peninsula.

**5. The Peninsulas** are Lower California and Yucatan.

**6. The Capes** are Catoche, Corrientes, Palmo, St. Lucas, St. Lazaro, and St. Eugenio.

**7. Chief Cities.**—Mexico (230,000), the capital, is beautifully situated on a fine plain surrounded by lofty mountains. South of it are Ixtacihuatl, or White Woman, an extinct volcano, and Popocatepetl, or Mountain of Smoke, an active volcano, 17,884 feet high, and Orizaba, 17,373 feet high. The city is square, and enclosed by high walls.

**Puebla** (65,000), in the southern portion of Mexico, the second city in size, manufactures glass, woollen goods, and sword blades. Between it and Vera Cruz are Cofre de Perote and Citlalteptl or the Star Mountain. It is 7200 feet above the level of the sea.



BRINGING ORES FROM THE MINES.

**Queretaro** (50,000), north-west of Mexico, has woollen manufactures. Here the Emperor Maximilian, betrayed by Lopez, was shot in 1867.

**San Luis Potosi** (40,000), north of Queretaro, in a rich mining district.

**Guanajuato** (63,000), west of Queretaro, has, in its immediate neighborhood, the richest gold and silver mines in Mexico.

**Guadaluajara** (70,000), on the Santiago, is noted for shawls, earthenware and leather work.

**Matamoras** (20,000), near the mouth of the Rio Grande, is a thriving port.

**Jalapa** (35,000), north-west of Vera Cruz, gives its name to the drug jalap.

**Vera Cruz** (10,000) and **Tampico** (15,000), on the Gulf of Mexico, are the chief commercial ports.

**Acapulco** and **Masatlan** (16,000) are ports on the Pacific coast.

**Tehuantepec**, south of the isthmus, is a small river port.

**Merida** is the chief town of Yucatan, and **Sisal** its seaport; but **Campechy** is the principal seaport of the peninsula.

**8. The Exports** are cattle, hides, fruit, Indian corn, indigo, silver, quicksilver, and lead.

**9. The Inhabitants** are a mixed people, consisting of about 5,000,000 Indians, 1,000,000 descendants of the Spaniards, 2,000,000 Mestizoes (European-Indians); besides Zambos (Africo-Indians), Mulattoes, etc.

## CENTRAL AMERICAN STATES.

Size, equal to a square of 427 miles. Population, about 1,250,000.



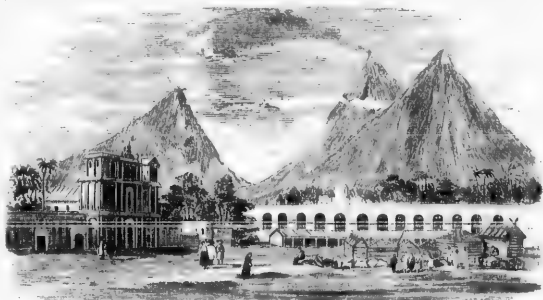
NEW GUATEMALA.

**1. Noted For.**—Central America is noted for its important geographical position between North and South America, and between the Atlantic and Pacific Oceans; and for its varied tropical products.

**2. Political Divisions.**—There are five republics in Central America, viz.: *Guatemala*, *San Salvador*, *Honduras*, *Nicaragua*, and *Costa Rica*; and one British colony, viz.: *British Honduras*.

**3. Physical Features.**—The Andes commence in these States. Volcanoes occur on the Pacific coast. Between the mountain ranges and along the central plateau or table-land there are numerous fertile plains.

**4. Products.**—Tropical plants grow in great profusion. Dye woods, mahogany, lignumvitæ, pimento, indigo, cochineal, sarsaparilla, vanilla, black-balsam, cotton, sugar, coffee, cocoa, tobacco, and minerals are the chief exports. Indian corn, rice, and cattle are articles of domestic trade. Reptiles and beautiful birds abound in the luxuriant forests.



GREAT SQUARE IN ANTIGUA, GUATEMALA.

## 5. Central States of America.

| Name.                | Position.            | Area in English square miles. | Population (about). | Capital.      | Where situated. | Population Capital. |
|----------------------|----------------------|-------------------------------|---------------------|---------------|-----------------|---------------------|
| 1. Guatemala.....    | N.W. of Cent. Am.    | 40,776                        | 1,200,000           | N. Guatemala. | Montagua Riv.   | 45,000              |
| 2. San Salvador..... | S.E. of Guatemala.   | 7,335                         | 500,000             | San Salvador. | N'r the Pacific | 16,000              |
| 3. Honduras.....     | N.E. of S. Salvador. | 47,000                        | 350,000             | Tegucigalpa.  | Choluteca Riv.  | 12,000              |
| 4. Nicaragua.....    | S.E. of Honduras.    | 78,170                        | 300,000             | Managua.....  | Lake Managua    | 10,000              |
| 5. Costa Rica.....   | S.E. of Nicaragua.   | 21,495                        | 185,000             | San Jose..... | Riv. Carthago.  | 12,000              |
| 6. Brit. Honduras.   | N.E. of Guatemala.   | 7,662                         | 26,000              | Belize.....   | Belize River.   | 6,000               |

**States.**—(A.) *Guatemala* extends from the Caribbean Sea to the Pacific. It is celebrated for two volcanoes about 15,000 feet high, named respectively *Fuego* (Fire) and *Agua* (Water), and for its ancient ruins and monuments. *Cochineal* was the chief export, but coffee is now produced in large quantities.

(a.) **Chief Places.**—*New Guatemala* (50,000), the capital, is on a plateau 4372 feet above the sea. The houses are built only one story in height, in consequence of the frequent earthquakes.

*Old Guatemala*, 25 miles to the west, was the former capital. It was founded in 1527, and nearly destroyed by an earthquake in 1774.

*Coban*, in the centre, is a considerable town.

*St. Thomas*, on the Gulf of Honduras, and *Istapa*, on the Pacific, are seaports.

(B.) *San Salvador* lies along the Pacific. It is the smallest of the States, but, in proportion to its size, the most populous. The surface is mountainous. It produces the *Balsam of Peru*. It has rich gold mines. *Indigo* is the chief export.

(A.) **Chief Places.**—*San Salvador* (16,000), the capital, was destroyed by an earthquake in 1854. It has been rebuilt.

*Cajutepeque*, on Lake Hopango, was for a time the seat of government.

*San Miguel* is an inland town.

*Acajutla* and *Libertad*, on the Pacific, and *La Union*, on Fonseca Bay, are seaports.

(C.) *Honduras* lies along the Caribbean Sea. It is celebrated for its forests of mahogany and dye woods. Turtle fishery is carried on along the shore. Lake *Yojoa* or *Taulch6*, 2050 feet above the sea, has an area of 135 square miles. It has three *affluents*. The Bay Islands (the chief of which are *Ruatan*, *Bonacca*, and *Utila*) were added to Honduras by Britain in 1860.

(c.) **Chief Places.**—*Tegucigalpa* (12,000), the capital, is in a rich mining district.

*Comayagua* (18,000), formerly the capital, is near the centre of the State.

*Omoa*, one of the hottest places in the world, and *Truxillo*, are the chief ports of Honduras.

(D.) *Nicaragua* extends from the Caribbean Sea to the Pacific. The Mosquito Territory, stretching along the Caribbean coast from the Rio Coco or Segovia to the San Juan, was ceded to Nicaragua in 1860. It contains Lakes *Leon* or *Managua* and *Nicaragua*, the latter drained by the San Juan. The surface is hilly, and the scenery beautiful.

(d.) **Chief Places.**—*Managua* (10,000), the capital, is situated on a lake of the same name.

*Leon* (30,000), the former capital, near the Pacific coast, has a fine cathedral.

*San Juan*, or *Greytown*, on the Caribbean coast, has an excellent harbor.

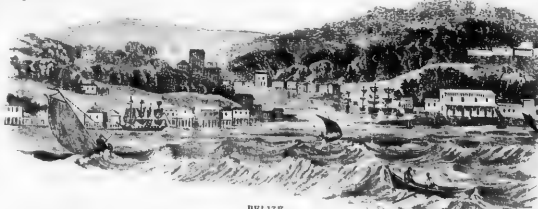
*Realajo* is the principal port on the Pacific coast.

(E.) *Costa Rica*, or *Rich Coast*, extends from the Caribbean Sea to the Pacific. Its surface is mountainous. The forests are extensive, and abound in dye woods. It has gold and coal. Coffee is the chief export.

(c.) **Chief Places.**—*San Jose* (12,000), the capital, 4500 feet above the sea, is in the midst of a coffee district.

*Cartago*, the former capital, was nearly destroyed by an earthquake in 1841.

*Punta Arenas*, on the Gulf of Nicoya and *Culberru*, on the Pacific coast, are the chief seaports.



BELIZE.

(F.) *British Honduras* lies east of Yucatan. It extends along the Caribbean Sea from the Rio Hondo on the north to the Rio Sarstoon on the south. Length about 170 miles, breadth 100 miles. Numerous islands lie along the coast, which is swampy. The interior is well wooded, and the soil in the valleys is fertile. The climate is warm, moist, and unhealthy. Sixteen rivers flow through the country, the chief of which is the *Belize*, navigable for 200 miles inland. Honduras was discovered by Columbus in 1502. It formed a dependency of the Island of Jamaica from 1861 to 1870, when it was made a separate Crown colony. The chief exports are mahogany, cedar, logwood, cocoa nuts, cochineal, and sarsaparilla.

(f.) **Chief Place.**—The capital is *Belize* or *Wallis* (6000), a Spanish corruption for *Wallis*, the name of a noted English pirate who formerly frequented the principal river of Honduras. The anchorage in front of the harbor is excellent. It has an hospital, and a lunatic asylum.

## THE WEST INDIA ISLANDS.

So called by Columbus, who supposed that they lay on the route to the East Indies. Size, about that of England and Ireland, or equal to a square of 306 miles.



WEST INDIA PRODUCTS.

**I. Noted For.**—Their tropical productions and fertility. They are chiefly colonial possessions of Great Britain, France, Spain, Denmark, and Holland.

**2. Position.**—They extend from the southern part of the Peninsula of Florida to the Gulf of Venezuela, on the north of the continent of South

America. Those opposite the American coast were first called *Antilles*, and that name has been since applied to the whole of them. They have been vaguely denominated the *West Indies*, from the term *India*, originally given to America by Christopher Columbus. These islands may be said, in general terms, to run in a south-east direction from the coast of Florida, to the north-east part of South America, forming a sort of interrupted barrier to the Gulf of Mexico and the Caribbean Sea.

**3. Divisions.**—They are divided into four groups, viz.: I. the Bahamas, which stretch 600 miles south-east of Florida. II. The greater Antilles (from *anti-isles*, or isles opposite the main land), reaching from the Gulf of Mexico to the Virgin Islands. III. The Lesser Antilles, from Porto Rico to the mouth of Orinoco River; and IV. The Venezuelan Coast Islands, off the northern coast of South America.

The Greater Antilles are Cuba, Hayti, Jamaica, and Porto Rico. The Lesser Antilles are divided into the Leeward or North Caribbean Islands, which include all the islands lying north of the 15th parallel, between Dominica and Porto Rico; and the Windward or South Caribbean Islands, or those south of the 15th parallel, between Martinique and Trinidad.

**NOTE.**—The Spaniards apply the term *Leeward* to the Venezuelan Coast Islands, and *Windward* to the islands extending from Porto Rico to Trinidad. The English, the French, and the Spaniards have affixed different meanings to the terms *Windward* and *Leeward*. It is evident that the acceptance of this nautical phrase must depend on the position of the navigator, and on the track he proposes to follow.

## 4. The British West India Islands and the Bermudas.

| Name.                | Mode of acquisition and date. | Area in English miles. | Population (about). | Capital.           | Pop.   |
|----------------------|-------------------------------|------------------------|---------------------|--------------------|--------|
| BAHAMAS.....         | Settlement, 1629.....         | 5,300                  | 39,200              | Nassau.....        | 7,000  |
| JAMAICA.....         | Capitulation, 1655.....       | 4,193                  | 506,500             | Spanish Town.....  | 6,000  |
| LEEWARD ISLANDS.     |                               |                        |                     |                    |        |
| Virgin Islands*..... | Settlement, 1688.....         | 57                     | 6,650               | Roadtown.....      | 2,800  |
| Anguilla.....        | Settlement, 1680.....         | 35                     | 3,500               | Anguilla.....      | 350    |
| Barbuda.....         | Capitulation, 1660.....       | 75                     | 2,500               | Barbuda.....       | 150    |
| St. Kitts.....       | Settlement, 1623, 1650.....   | 70                     | 28,700              | Basseterre.....    | 7,700  |
| Nevis.....           | Settlement, 1628.....         | 20                     | 12,000              | Charlestown.....   | 1,800  |
| Antigua.....         | Settlement, 1632.....         | 108                    | 35,200              | St. John.....      | 15,500 |
| Montserrat.....      | Settlement, 1632.....         | 32                     | 8,700               | Plymouth.....      | 1,400  |
| Dominica.....        | Ceded by France, 1763.....    | 291                    | 29,000              | Roseau.....        | 5,000  |
| WINDWARD ISLANDS.    |                               |                        |                     |                    |        |
| St. Lucia.....       | Capitulation, 1803.....       | 237                    | 33,600              | Castries.....      | 2,400  |
| St. Vincent.....     | Ceded by France, 1763.....    | 147                    | 36,000              | Kingstown.....     | 5,500  |
| Grenadines.....      | Ceded by France, 1763.....    | 166                    | 40,800              | St. George.....    | 4,000  |
| Barbadoes.....       | Settlement, 1605.....         | 166                    | 163,000             | Bridgetown.....    | 22,000 |
| Tobago.....          | Ceded by France, 1763.....    | 114                    | 17,000              | Scarborough.....   | 3,000  |
| Trinidad.....        | Capitulation, 1797.....       | 1,754                  | 110,000             | Port of Spain..... | 24,000 |
| BERMUDAS.....        | Settlement, 1611.....         | 40                     | 13,400              | Hamilton.....      | 2,500  |

\* Some of the.

**5. The Spanish Islands** are Cuba, Isle of Pines, Porto Rico, and two of the Virgin Isles.

**6. The French Islands** are Guadeloupe, Desirade, Marie Galante, Les Saintes, St. Bartholomew, the northern part of St. Martin, and Martinique.

**7. The Danish Islands** are Santa Cruz, St. Thomas, and St. John, all in the Virgin group.

**8. The Dutch Islands** are St. Eustatius, Saba, and the south part of St. Martin in the Leeward Islands, and Los Roques, Buen Ayre, Curaçoa, and Oruba in the Venezuelan Coast Islands.

**9. Hayti**, between Cuba and Porto Rico, is independent.

**10. The Venezuelan Islands** are Margarita, Tortuga, and Orchilla.

## BRITISH WEST INDIA ISLANDS AND BERMUDAS.

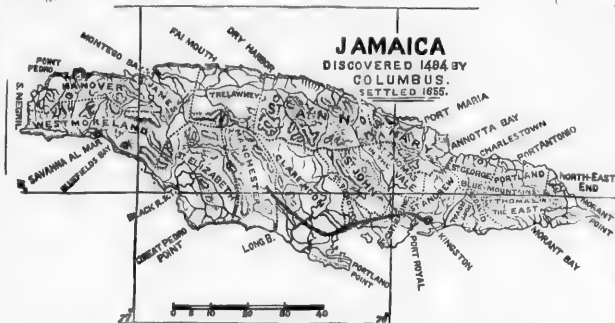
## NEW PROVIDENCE.



**Commerce.**—The chief exports are salt, sponges, oranges, pine apples, and other fruits. Nassau, the capital, is a well-built city on New Providence Island. Its harbor affords safe anchorage.

## 1. The Bahamas, or

**Lucaya Islands**, are a group of about 500 islands north-east of Cuba and south-east of Florida, between which and the Bahama Islands the Gulf Stream flows into the Atlantic. They are chiefly long, narrow, and rocky. The sand banks are dangerous to navigation. The chief islands are, Grand Bahama, Great Abaco, Eleuthera, Andros, New Providence, Guanahani or San Salvador, Exuma, Long, Acklin, Mariguana, and Great Inagua. The Caicos and Turk Islands, at the southern extremity of the Bahamas, are annexed to the government of Jamaica. San Salvador Island (Watling's Island) is supposed to be the first land of the New Western World discovered by Columbus. Many of the settlers in 1783 were American United-Empire Loyalists.



**2. Jamaica**, or the Land of Wood and Water, one of the Greater Antilles, is the most important and the largest of the British West India Islands. It was discovered by Columbus in 1494. It is situated 90 miles south of Cuba, in the Caribbean Sea. Its length is about one hundred and fifty miles, and its width fifty. The Blue Mountains, in many places from 7000 to 8000 feet high, traverse its entire length. It has upwards of 100 rivers rising in the mountains, and running with great rapidity to the sea on both sides. Its tropical vegetation is very exuberant, the climate is temperate, and the soil fertile.

**Commerce.**—The chief exports are sugar, rum, coffee, logwood, and spices.

**Spanish Town**, or *St. Jago de la Vega*, the seat of government, is in the interior of the Island, about 16 miles from Kingston.

**Kingston** (35,000) is the chief place of trade, and its extensive commerce makes it a place of consequence.

**Port Royal** (15,000) is a fortified naval station.

**3. The Leeward Islands**, embracing the six colonies of Antigua, Montserrat, St. Christopher, Nevis, Dominica, and the Virgin Islands, were united as one Federal Colony in 1871, by Act of Imperial Parliament.

## ANTIGUA



**(2). Montserrat** is an oval-shaped island. Two-thirds of the surface are mountainous; the remainder is fertile. Exports: sugar, rum, tamarinds, and arrowroot.

**Chief Town.**—Plymouth.

**(1). Antigua.**—The coast of this Island is indented and rugged. The interior is rich and fertile. The climate is dry. Exports: sugar, cotton, rum, and molasses.

**Chief Towns.**—St. John, the capital, Falmouth, and Parham.

**Barbuda**, a fertile island, producing grain, cotton, and tobacco, is a dependency of Antigua.

**(3). St. Christopher, or St. Kitts**, is traversed in the centre by a volcanic mountain ridge, in the middle of which rises Mount Misery, 4100 feet high. The scenery is beautiful, the soil fertile, and the climate healthy. There are four rivers, and several salt-ponds. Hurricanes occur occasionally; a terrific one visited the island in 1772. Exports: sugar and rum.

**Basseterre** is the capital. **Anguilla** is a dependency of St. Kitts.

**(4). Nevis** is a single mountain, two miles south of St. Christopher. Exports: sugar, rum, and molasses. The government is administered by the Lieutenant Governor of St. Kitts.

**(5). Dominica** is of volcanic origin, and is the highest of the Lesser Antilles. Though mountainous, the valleys are fertile. Exports: sugar, coffee, rum, and cocoa.

**Chief Towns.**—Roseau, the capital, and St. Joseph.

**(6). The Virgin Islands** are a group of 100 small isles east of Porto Rico. They occupy a space of about 100 miles long by 20 wide. Fifty of them are British; the others belong to Denmark and Spain. Tortola, Virgin Gorda, and Anegada are the chief of the British islands. Exports: sugar, cotton, coffee, cattle, and copper.

**Roadtown**, in Tortola, is the capital of the British Islands.

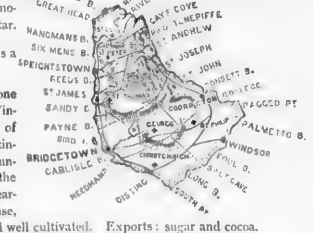
**4. The Windward Islands** are as follows:

**(1). Barbados or Barbadoes**, the first-settled British West India Colony, is the most easterly of the group. It is nearly encircled by coral reefs. The surface is highly picturesque. It is one of the healthiest of the West India Islands. Rains fall in November and December; but violent thunder-storms are not frequent. Of the 106,470 acres which it contains, 100,000 are under cultivation, 10,000 with sugar-cane. The exports consist of sugar, molasses, meal, flour, rum, and tar.

**Bridgetown**, the capital, is a fine city.

**(2). St. Lucia** is twenty-one miles north by east of St. Vincent, and twenty miles south of the French island of Martinique. It has a rugged and mountainous surface: many of the heights are fantastic in appearance. The forests are dense, but the valleys are fertile and well cultivated. Exports: sugar and cocoa.

**Chief Towns.**—Castries, the capital, and Soufrière. *Bridgetown* Latitude, 13° 4' N. Longitude, 59° 37' W.

BARBADOS  
SETTLED IN 1605.

HARVESTING SUGAR CANE.

**(3). St. Vincent**, discovered by Columbus on the festival of St. Vincent, is a hundred miles west of Barbadoes. A ridge of well-wooded hills runs north and south through the island. Soufrière, a volcanic mountain, is 3000 feet high, with a crater three miles in circuit and 500 feet deep. The valleys are fertile, and the climate is humid. The exports are sugar, molasses, arrowroot, rum, cocoa, and cotton.

Some of the Grenadines, of which Bequia is the largest, are dependencies.

**(4). Grenada**, north-west of Tobago, is a beautiful oblong island. The interior, traversed by volcanic mountains (some of them 3000 feet high), is rugged and picturesque. In the centre is a circular lake, 1700 feet above sea-level, and enclosed by lofty mountains. Streams are numerous. Exports: sugar, rum, and cocoa.

Some of the Grenadines, of which Carriacou is the largest, are dependencies.

**St. Georgestown** is the capital.



he made a vow to give that name to the first land he should discover. It is about 60 miles long and 45 miles broad, with three long promontories. From the north it appears like an immense ridge of rocks; from the south, the panorama of hill and valley is magnificent. The mountains, some 3000 feet high, run east and west. The rivers are large. In the south-west of the island there are bubbling mud volcanoes. There is a submarine volcano on each side of the island; one discharges petroleum, the other bitumen. On the west side there is an asphaltum or pitch lake, one and a half miles in circuit, and 80 feet above the sea. The climate is not unhealthy. The soil is fertile and timber abundant. The exports are sugar, cocoa, molasses, and rum.

**Port of Spain**, the capital, is one of the finest towns in the West Indies. The harbors on the south and west coasts are good and are plentifully stocked with fish.

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**5. The Bermudas, or Somers Islands,** are a cluster of coralline islands, about 500 in number, and of very fantastic shapes, in the North Atlantic Ocean, 600 miles from South Carolina. They were named respectively after Juan Bermudez, a Spaniard, who first sighted them in 1527, and from Sir George Somers, an Englishman, whose shipwreck here in 1609 was the immediate occasion of their being colonized from Virginia. They are almost surrounded by coral reefs, the only ones in the Central Atlantic and the most northerly ones on the globe. The chief exports are potatoes, tomatoes, bananas, onions, and arrow-root.

**Hamilton**, the capital, is on Long Island, the principal island.

*Georgetown*, on St. George's Island, is fortified.

Ireland Island has extensive dockyards, and Boaz, convict prisons.



## WEST INDIA ISLANDS.

## SPANISH WEST INDIA ISLANDS.

Area, 6,627 square miles, or equal to a square of 255 miles. Population, 2,000,000.



CITY OF HAVANA, CUBA CAPITAL OF THE SPANISH WEST INDIA ISLANDS.

1. **Noted For.**—Cuba, called the "Queen of the Antilles," is noted for being the largest of the West India Islands, and for its fertility.

2. **Position.**—The Island of Cuba, the most important of the West India group, is situated to the south of Florida in the United States, between the northernmost part of Yucatan and the westernmost point of Hayti. It is about 700 miles long and about 70 in breadth.

3. **Physical Features.**—A mountain range runs along the Island of Cuba, dividing it into North and South Cuba. The Cauto, the largest river in the island, flows 70 miles from the Copper Mountains. The valleys and plains of the northern part are rich and fertile. Chief products: sugar, coffee, tobacco, tropical fruits, mahogany, and copper. The rivers and coasts abound with fish, and turtles frequent the shallows.

4. **Cities.**—Havana (210,000). *La Habana* (the harbor), the capital, is admirably situated on the north-west coast of Cuba, and is a place of great commercial importance. Its harbor is one of the best in America. The entrance to it is through a narrow passage half a mile long. A strong fortified castle guards either side of the entrance. The Cathedral, the Governor General's Palace, the Post Office, and the Arsenal are the principal edifices. A railway connects the adjacent towns. The remains of Columbus, who died in 1506 at Valladolid (Spain) aged 29, were removed in 1543 from Seville (Spain) to San Domingo (Hayti), in 1850 to Havana, and in 1860 to a cemetery near that city.

*Matanzas* (20,000), on the north coast, is an important seaport.

*Santiago* (10,000) is the chief port on the southeast coast.

*Pinar del Rio*, on the south coast, has a good harbor.

*Puerto Principe* (10,000) is an important inland town. It is connected by a railroad with its port, *Los Naranjos*, on the north coast.

The Isle of Pines, to the south, belongs to Cuba.

5. **Porto Rico** (rich port), a beautiful island, with a fine climate and fertile soil, is noted for its agriculture. It was discovered by Columbus during his second voyage to the west in 1493, and is a dependency of Cuba. It lies between the Island of Hayti and the Virgin Islands.

**San Juan** (15,000), on the north coast, is the capital.

The island of *Culebra*, or *Passage Island*, in the Virgin group, belongs to Porto Rico.

## FRENCH WEST INDIA ISLANDS.

Area, 1021 square miles, or equal to a square of 32 miles.

1. **Guadaloupe** lies south of Antigua. It is divided by a strait into two islands, called *Grande Terre* and *Basse Terre*. *Basse Terre* is volcanic, and contains the burning mountain of *souffrière*, 5108 feet high. *Grande Terre* is of coral formation, and is less fertile.

*Marie Galante*, *Les Saintes*, *Desirade*, and part of the island of *St. Martin*, to the north, are dependencies. Chief exports: sugar, coffee, cocoa, and spices.

*Basse Terre* is the capital. *Point-à-Pitre* is the chief town in *Grande Terre*.

2. **Martinique** is separated from Guadaloupe by Dominica. It is rocky, and has an irregular coast line. The interior is well wooded, and, where level, is fertile. The chief exports are sugar and coffee.

*Port Royal* is the military capital.

*St. Pierre* is the principal place of trade. It is the birthplace of Josephine, the first Empress of Napoleon I.

3. **St. Bartholomew** lies between St. Martin and Barbuda. It is hilly. The exports are cotton and salt. The capital is *Gustavia*.

## DANISH WEST INDIA ISLANDS.

Area, 119 square miles, or nearly a square of 11 miles.

1. **Santa Cruz** is the largest of the Danish Virgin Islands. The northern part is hilly, but the interior is flat. The chief products are sugar and cotton.

*St. Thomas* and *St. John* are two islands to the north of Santa Cruz. They are rocky and irregular. *St. Thomas*, the capital, is an important mail-packet station.

2. **Christianstadt** is the capital of the group.

## DUTCH WEST INDIA ISLANDS.

Area, 368 square miles, or about a square of 19 miles.

1. **These islands** lie in the north and south parts of the Caribbean Sea. They are *St. Martin* (in part), *Saba*, *St. Eustatius*, *Los Roques*, *Buen Ayre*, *Curacao*, and *Oruba*.

2. **St. Martin**, and the neighboring inlets of *Saba* and *St. Eustatius*, are at the north among the Leeward Islands, east of Porto Rico. The Dutch own the southern part of *St. Martin*. It is steep and rocky. The chief exports are goats, hogs, poultry, sugar, and cotton.

3. **Los Roques**, *Buen Ayre*, *Curacao*, and *Oruba* are off the South American coast. They are hilly, rather than mountainous. The chief exports are salt, timber, lime-juice, cochineal, and fruit. *Williamstadt*, the capital of the group, is a place of considerable trade.

## INDEPENDENT.—HAYTI, OR SAN DOMINGO.

Hayti, from *Hayti*, high land. Area, 29,500 square miles, or equal to a square of 173 miles. Population, 800,000.



BAY OF SAMANA.

**Position, etc.**—The island of Hayti, or San Domingo, was called by Columbus *Hispaniola*, or Little Spain. It lies between Porto Rico—from which it is separated by the Mona Passage—on the east, and Jamaica and Cuba on the west. The channel between the latter Island and Hayti is denominated the *Windward Passage*, and is about 36 miles wide. The natives at the time of the discovery of the island were of the Caribbean race, but they were subjugated by the Spaniards, in 1495, who gave it the name of San Domingo. In 1697, the island was divided into two parts, between France and Spain; that which is now properly and strictly called *Hayti*, and *Hispaniola*, the former comprehending the French division and the latter the Spanish. In 1791, the slaves in the western, or French, part of the island rose and massacred the whites. In 1801, it became an Independent Republic and slavery was abolished. In 1843, a second independent Negro Republic was established in the eastern, or Spanish, part of the island, under the name of *Dominica*; but in 1861 the Dominican Republic placed itself under the protection of Spain.

**Physical Features.** There are two great chains of mountains which stretch from east to west, and from these numerous spurs branch out. There are also immense plains called *Las Llanos*, which occupy nearly a sixth part of the island. The rivers are numerous, and there are many excellent bays and harbors. The soil is very productive, and the flora is very extensive. The island is distinguished for its mines of gold and silver, copper and iron. Mahogany is a staple export. Sugar, cotton, coffee, tobacco, and cocoa are its chief exports.

**Port au Prince** (27,000), the capital of Hayti, is situated on the Bay of Gonaives.

*Cape Haytien* (12,000), on the north coast, is an important town.

*Jacmel* is on the south coast.

**San Domingo** (15,000), on the south coast, was founded by the Spaniards in 1495, and may be considered the first and oldest European settlement in the West Indies. The port, though only fit for small vessels, is convenient and safe.

*Santiago* (12,000), and *Samana*, on the north coast, are important ports. The Bay of Samana is one of the finest natural harbors in the world.

## VENEZUELAN ISLANDS.

**Margarita**, **Tortuga**, **Orcilla**, **Blanquilla**, and the islet of **Testigos** (from the state of Nueva Esparta, one of the states of Venezuela. **Ascuncion** is the capital. Size of islands, about a square of 10 miles.

Margarita was formerly celebrated for its pearl-oyster fishery. It lies northward of Cumana. Tortuga lies sixty miles west of Margarita.

# DANISH AMERICA.

Area, 619,800 square miles, or equal to a square of 799 miles.

**Extent.**—Danish America comprises *Greenland* (in part), *Iceland*, and some smaller island lying along their coasts.



AN ARCTIC SCENE.

## GREENLAND.

So called from the green moss found upon its shores when first discovered, A.D. 986. Area, probably about 600,000 square miles, or equal to a square of 775 miles. Population, 9,800.

**1. Noted For.**—Greenland is chiefly noted for its discovery by the Icelanders about 500 years before the time of Columbus. It was visited, and its west coast explored by Frobenius, Davis and Baffin in 1576 to 1616.

**2. Position and Physical Features.**—This region of frost and snow is bounded on the north and north-east by the Arctic Ocean; on the south-east and south by the Atlantic; and on the west by Davis Strait, Baffin's Bay, and Kennedy Channel. It is a region of unknown extent northwards. Some regard it as a cluster of islands joined together by ice. The interior has not been explored. Along the coast the surface is mountainous and rocky. Towards the eastern shore, Mount Petermann rises to the height of 11,420 feet. Cape Farewell is the southern extremity.

**3. Products.** The soil is barren, and the climate severe. July is the only month in which no snow falls. A few vegetables are produced in the southern part. Whales, walrus, and seals abound in the surrounding seas. The seal, polar bear, arctic fox, and reindeer abound and supply the inhabitants with almost all the necessities of life. The inhabitants are Eskimos and Danes. The exports to Denmark consist of eider-down, seal skins, whalebone, and fish oil. Coal is mined on Disco Island, and cryolite at Evigtok, in Arskut Fjord.



MODE OF TRAVELLING AMONG THE ESKIMOS.

**4. Divisions.**—Greenland is divided, by the 66th parallel, into a Northern and a Southern district: *Godthaab*, or *Lively*, on Disco Island, is the capital of Northern, and *Godthaab*, at the entrance of Davis Strait, of the Southern Inspectorate. The other chief settlements are *Juulianshaab*, the principal station in Greenland, and *Fredericksaah*, in the south; *Hennhut*, the chief mission station, *Christianshaab*, and *Upernavik* (73° 20' N. Lat.), the most northerly abode of civilized man. These settlements are all on the west coast.

**5. Jan Meyen**, a desolate island, lies east of Greenland.

## ICELAND.

So called from its icy coldness. It is sometimes considered as belonging to Europe. Area, 78,632 square miles, or equal to a square of 199 miles. Population, 99,000.

**1. Noted For.**—Iceland is noted for its eight active volcanoes, chief among which is the celebrated Mount Hecla (5310 feet), which has been a burning mountain since the year 1106. About thirty volcanoes have been discovered on the island. It is also noted for its wonderful geysers and the number of its boiling springs.

**2. Position.**—This island is situated on the verge of the Arctic ocean. It is distant from the colonized part of Greenland 166 miles, from the Feroe Isles, 220 miles, and from Dronheim in Norway 330 miles. It was discovered about A. D. 860 by a Norwegian pirate, named Nadohr, who was accidentally driven on the coast while on a voyage to the Feroe Islands. The country was colonized in the year 874 by the Norwegians, and was transferred to Denmark in the year 1381.

**3. Physical Features.**—The surface is mountainous. The highest mountains, some of them reaching an elevation of 6000 feet, are on the east and west sides of the island. The climate is variable, and violent storms are frequent. The longest period of continuous daylight in summer, and of darkness in winter, is about 160 hours each. The aurora-borealis is here seen in all its brilliance and grandeur.



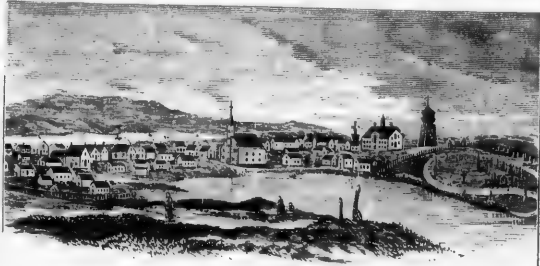
THE GEYSERS, OR BOILING SPRINGS, IN ICELAND.

The coast, which is remarkable for numerous rugged snow-peaked mountains, is deeply indented with fiords or inlets.

**4. Products.**—No trees grow on the island but the birch, which barely withstands the rigor of the winter; its growth being very limited, rarely exceeding more than 5 or 6 feet in height; a few stunted shrubs and a medicinal moss are met with; ordinary garden vegetables grow in abundance. Domestic animals are numerous, the eider-duck and fish are abundant. Among the mineral productions are zeolite, obsidian, malachites, basalts, crystals, agates, a kind of petrified wood, which supplies the place of coal, and vitriol and iron.

**5. The Natural Curiosities** are the volcanoes, and the celebrated Geysers, or boiling springs, which abound in the western part of the island.

**6. The Inhabitants** are of the Scandinavian race. The *althing*, or council of twenty-six members, established in 1874, meets at Reikiavik. The Governor is appointed by the King of Denmark.



TOWN OF REIKIAVIK.

**7. Reikiavik**, the capital of Iceland, is a small town on the south-west coast. It contains an observatory, a college, and a public library. Reikiavik, means *Reck*, or *Steam Town*, from the geysers or boiling springs in the vicinity. *Holar* is on the north coast, and *Skatvit* near Mount Hecla.

## FRENCH NORTH AMERICA.

Size, equal to a square of 10 miles.

**1. Noted For.**—French North America is noted for its extensive exportation of dried salt fish.

**2. Extent and Position.**—It is composed of the small fishing islands of *Miquelon*, including *Langley* peninsula, and *St. Pierre*, which lie off the south coast of Newfoundland; on a part of which coast the French have, by treaty, a right to salt or dry fish.

**Chief Town.**—*St. Pierre*, on St. Pierre Island; the surface is rocky and vegetation scanty.

## PART III.

### SOUTH AMERICA.

South America is noted for its compactness, and its unbroken line of sea coast; its magnificent mountain ranges and noble rivers; its valuable timber; the profusion of its tropical productions; and its silver and diamond mines.

**1. Boundaries.**—South America is bounded on the north by the Caribbean Sea; on the north-east and east by the Atlantic Ocean; on the south by the Antarctic Ocean; and on the west by the Pacific Ocean and Central America.

**2. Form.**—South America consists of a large triangular shaped portion of land, one side facing north-east, one south-east, and the third, west.

**3. Position.**—It extends from  $12^{\circ} 28'$  N. Lat. to  $55^{\circ} 53'$  S. Lat., and from  $35^{\circ} 20'$  to  $83^{\circ}$  W. Long.

**4. Extreme Points.**—North, *Point Gallinas* (N. Lat.  $12^{\circ} 28'$ ); South, *Cape Froward* (S. Lat.  $53^{\circ} 53'$ ); East, *Point Branco* (W. Long.  $34^{\circ} 30'$ ); West, *Cape Parina* (W. Long.  $81^{\circ} 25'$ ).

#### 7. Political Divisions of South America.

| Name.                                  | Position.                              | Area in English sq. miles. | Population (about) | Capital.          | Lat.                | Long. W.         | Where Situated.           | Population of Capital. |
|----------------------------------------|----------------------------------------|----------------------------|--------------------|-------------------|---------------------|------------------|---------------------------|------------------------|
| 1. United States of Columbia....       | In the North-West of South America.... | 920,750                    | 3,000,000          | Bogota.....       | $4^{\circ} 43'$ N.  | $74^{\circ} 12'$ | River San Francisco....   | 50,000                 |
| 2. Venezuela.....                      | East of United States of Columbia....  | 439,000                    | 1,800,000          | Caracas.....      | $10^{\circ} 28'$ N. | $67^{\circ} 20'$ | Near North Coast.....     | 50,000                 |
| 3. British Guiana.....                 | East of Venezuela.....                 | 85,400                     | 240,000            | Georgetown.....   | $6^{\circ} 40'$ N.  | $58^{\circ} 30'$ | River Demerara.....       | 37,000                 |
| 4. Dutch Guiana.....                   | East of British Guiana.....            | 46,100                     | 70,000             | Paramaribo.....   | $5^{\circ} 49'$ N.  | $54^{\circ} 59'$ | River Surinam.....        | 25,000                 |
| 5. French Guiana.....                  | East of Dutch Guiana.....              | 46,800                     | 27,000             | Cayenne.....      | $4^{\circ} 49'$ N.  | $52^{\circ} 18'$ | Cayenne Island.....       | 8,000                  |
| 6. Brazil.....                         | In the East of South America.....      | 3,220,000                  | 11,047,500         | Rio Janeiro.....  | $22^{\circ} 57'$ S. | $43^{\circ} 07'$ | East Coast.....           | 275,000                |
| 7. Ecuador.....                        | South of United States of Columbia.... | 248,000                    | 1,150,000          | Quito.....        | $0^{\circ} 13'$ S.  | $78^{\circ} 23'$ | River Esmeraldas.....     | 80,000                 |
| 8. Peru.....                           | South of Ecuador.....                  | 503,400                    | 3,650,000          | Lima.....         | $12^{\circ} 27'$ S. | $77^{\circ} 47'$ | River Rimac.....          | 100,000                |
| 9. Bolivia.....                        | South of Peru.....                     | 503,400                    | 2,325,000          | Oruro.....        | $17^{\circ} 55'$ S. | $67^{\circ} 24'$ | North of Lake Poopo.....  | 8,000                  |
| 10. Chili.....                         | South of Bolivia.....                  | 124,100                    | 2,300,000          | Santiago.....     | $33^{\circ} 25'$ S. | $70^{\circ} 38'$ | River Mapocho.....        | 150,000                |
| 11. Argentine Republic.....            | East of Chili.....                     | 1,178,000                  | 2,400,000          | Buenos Ayres..... | $34^{\circ} 35'$ S. | $58^{\circ} 22'$ | Rio de la Plata.....      | 201,000                |
| 12. Paraguay.....                      | North-East of Argentine Republic.....  | 92,000                     | 300,000            | Asuncion.....     | $25^{\circ} 30'$ S. | $57^{\circ} 30'$ | River Paraguay.....       | 20,000                 |
| 13. Uruguay.....                       | East of Argentine Republic.....        | 72,000                     | 450,000            | Monte Video.....  | $34^{\circ} 54'$ S. | $56^{\circ} 19'$ | Rio de la Plata.....      | 91,000                 |
| 14. Falkland Isles and S. Georgia..... | East of Tierra del Fuego.....          | 6,500                      | 1,300              | Stanley.....      | $51^{\circ} 41'$ S. | $57^{\circ} 51'$ | East Falkland Island..... | 300                    |

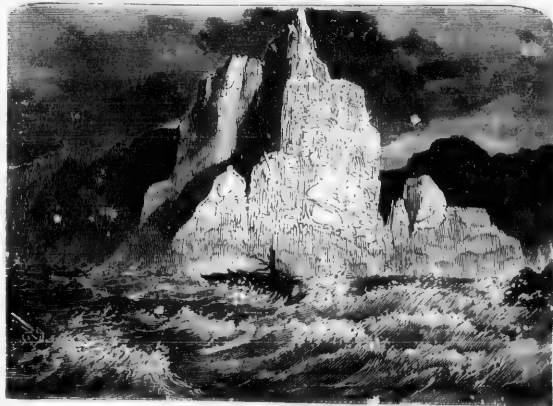
#### 8. Physical Coast Features.

##### I. In the Caribbean Sea.

(1.) **Islands.**—*Curaçoa*, *Buen Ayre*, *Tortuga*, *Margarita*, and *Trinidad*, all north of Venezuela.

(2.) **Peninsulas.**—*Guajira*, north of Columbia; *Paraguana*, north-west of Venezuela; *Paria*, north of Venezuela.

(3.) **Capes.**—*Point Gallinas*, north-east of Columbia, the northernmost point of South America; *Cape Paria*, at the entrance to the Gulf of Paria.



CAPE HORN.

(4.) **Gulfs and Bays.**—*Gulf of Darien*, north of Columbia; *Gulf of Paria*, north of Venezuela; *Gulf of Venezuela*, between Columbia and Venezuela; to the south of this gulf is the lagoon of *Muracaybo*; *Bay of Guatemala*, to the north of Panama.

**5. Extent.**—(a.) Its extreme *length* from north to south is about 4600 miles, and its extreme *breadth*, about 3200 miles. Its breadth at the equator is 2100 miles, and at Buenos Ayres 900 miles. (b.) The area of South America is about 7,187,500 square miles, 1.84 times that of Europe, or equal to a square of 2683 miles, about three-fourths of which lies between the tropics and the other fourth in the temperate zone. (c.) The coast line is estimated at about 12,000 miles, or 1 mile of coast for 600 square miles of surface; upon the eastern coast are the three great rivers, the Orinoco, the Amazon, and the La Plata; on the northern coast are the Caribbean Sea and the Leeward Islands, a portion of the West Indian group; and on the western are the Andes mountains, ranging from Panama to the Straits of Magellan.

**6. Population.**—The estimated population amounts to about 28,000,000.

##### II. In the Atlantic Ocean.

(1.) **Islands.**—*Marajo* or *Joannes*, and *Cavianna Islands* at the mouth of the Amazon. The *Falkland Islands*, a group of two large (East Falkland and West Falkland) and about 200 small islands, about 300 miles east of Southern Patagonia; *South Georgia*, a barren region with high snow-clad mountains, about 1000 miles south-east of Patagonia. The archipelago of *Tierra del Fuego* lies off the south coast of Patagonia, from which it is separated by the Strait of Magellan. The most southern island of the group is *Horn Island*, and the most eastern *Staten Island*. In the large island, named *Eastern Tierra del Fuego*, there are several volcanoes,—whence the name Land of Fire. The other principal islands of the group are *Clarence*, *Hoste*, and *Niuevin*.

(2.) **Peninsula.**—*San Josef* or *Valdes*, on the east side of Patagonia.

(3.) **Capes.**—*Cape Orange*, at the mouth of the Oyapok River in Brazil: *Cabo de Norte* (North Cape), at the mouth of the Amazon; *Cape St. Roque*, north-east of Brazil; *Cape Branco*, the most eastern point of South America; *Cape San Thome* and *Cape Frio*, east of Brazil; *Cape Santa Maria*, east of Uruguay; *Cape San Antonio* and *Cape Corrientes* (Cape of Currents), east of Buenos Ayres; *Cape Tres Puntas*, east of Patagonia; *Cape Virgins*, at the eastern entrance to the Strait of Magellan; *Cape San Diego*, at the eastern entrance to the Strait of Le Maire; *Cape Horn*, on Horn Island, the most southern point of the New World.

(4.) **Gulfs and Bays.**—*Estuary of the Amazon* and *Rio Para*, north of Brazil; *All Saints Bay*, in Bahia; *Bay of Rio de Janeiro*, east of the province of Rio de Janeiro; *Lake of Patos*, in Rio Grande de Sul; *Estuary of the Rio de La Plata*, between Uruguay and La Plata; *Bahia Blanca*, in Buenos Ayres; *Gulfs of San Katias* and *St. George*, east of Patagonia.

(5.) **Straits.**—*Strait of Magellan*, between Patagonia and Tierra del Fuego; *Strait of Le Maire*, between Tierra del Fuego and Staten Island.

##### III. In the Pacific Ocean.

(1.) **Islands.**—The *Galapagos*, or *Turtle Islands*, thirteen in number, lie 700 miles west of Ecuador, to which State they belong. They are of volcanic origin, generally barren, and uninhabited. They are frequented by tortoises of immense size, whence the name Turtle Islands. *Albemarle Island* and *Indefatigable Island* are the largest. Two others are named *James Island* and *Charles Island*, after kings of the Stuart line. The *Chincha Islands*, west of Peru, are a small group covered with a rich deposit of excellent guano. *Juan Fernandez* lies about 400 miles west of Chili,

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| 300                    |  |

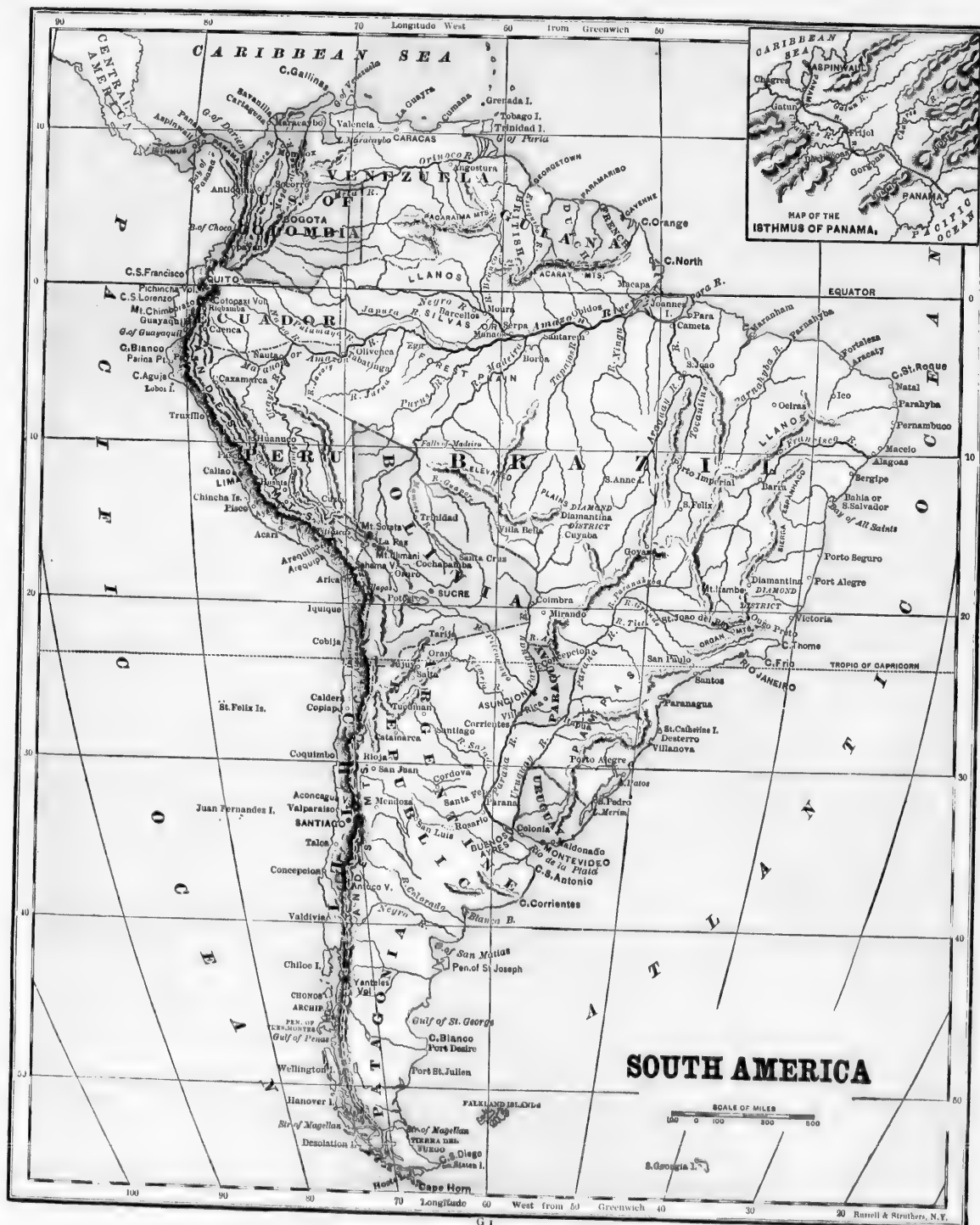
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to which it belongs. It is 18 miles in length, and is of volcanic formation. It is celebrated as the solitary residence, for four years, of Alexander Selkirk, whose adventures suggested to Defoe the well known tale of Robinson Crusoe. *Chiloe*, *Chonos Archipelago*, *Wellington*, *Madre de Dios Archipelago*, and *Desolation Land* in the *Tierra del Fuego Archipelago*, west of Patagonia.

(2) *Peninsula*.—*Peninsula of Tres Montes*, west of Patagonia.

(3) *Capes*.—*Cape San Francisco*, west of Ecuador; *Cape Blanco*, *Cape Aguja*, and *Cape Parina*, the most western point of South America, all north-west of Peru; *Cape Pillar*, at the western entrance to the Strait of Magellan; *Cape Froward*, the most southern point of the mainland of South America.

(4) *Gulfs and Bays*.—*Bay of Panama*, west of Columbia; *Gulf of Guayaquil*, west of Ecuador; *Gulf of Arica*, west of Peru; *Gulf of Penas*, west of Patagonia.

(5) *Straits*.—*Strait of Chacao*, between Chili and Chiloe; *Strait of Magellan*, between Patagonia and *Tierra del Fuego*.

(6) *Isthmus*.—The *Isthmus of Panama* unites Central with South America, and is now a passenger route by railway between the Atlantic and Pacific Oceans. It is from 30 to 70 miles in breadth, and has a mean elevation of 850 feet, but the railway crosses it at a height of about 262 feet above the sea.

## 9. Physical Features of the Interior.

### (I.) Mountain Systems.

The mean elevation of South America is 1152 feet. Its three great mountain systems are: I. The System of the Andes; II. The System of Parimé; and III. The System of Brazil.

(A.) *The System of the Andes* extends along the Pacific coast, through 65° of latitude, from the Isthmus of Panama to Cape Horn, a distance of 4500 miles, with a breadth varying from 30 to 500 miles, and with a mean height of 11,800 feet. It covers about one-sixth of the area of South America, and contains 26 active and 30 dormant volcanoes. The Andes are second only to the Himalayas in the vastness of their proportions, and they possess many remarkable peculiarities. They are for the most part narrow relatively to their height, and rise with a rapid slope from the low country on either side. The origin of the name appears to be unknown. The Andes may be divided into five principal sections.

(a.) *The Andes of Quito* extend through Columbia and Ecuador from the Caribbean Sea to the mountain *Knot of Loxa* in 5° S. Lat. In Columbia they consist of three ranges, which unite in the *Knot of the Paramos de las Papas* (2° 20' N. Lat.). The western range, the *Cordillera of Chaco*, which is the least in elevation, runs between the valley of the Rio Cauca and the Rio Atrato. The middle chain, the *Cordillera of Quindiu*, is the highest. It runs from south to north between the Rio Cauca and the Magdalena. Its highest summit is the Volcano of Tolima, 18,020 feet. The mean elevation of the chain exceeds 12,000 feet. The eastern range, the *Sierra de la Suma Paz*, runs north-east, separating the valley of the Magdalena from the llanos watered by the tributaries of the Orinoco and the Marañon. At about 10° N. Lat. it unites with the coast range of Venezuela (*Sierra Costanera*). From the *Knot of Los Pastos*, south of Las Papas, a double chain extends through Ecuador to the *Knot of Loxa*. The cross ridges of *Asmay* and *Chisncha* divide the enclosed valley into the Plateaus of Cuenca, La Tapia, and Quito. In the eastern chain the principal summits are Cayambe, on the equator, 19,535 feet; Antisana, 19,137 feet; and Cotopaxi, or more properly, *Cutu-pacsi*, "a brilliant mass," 18,875 feet; and in the western, Pichincha, "the boiling mountain," 15,936 feet; and Chimborazo, 21,424 feet. In this section, the height of the snow-line is 15,800 feet, and there are 18 volcanoes, of which 10 are active.

(b.) *The Andes of Peru* extend in three ranges, from the *Knot of Loxa* to the *Knot of Cusco*, or from 5° to 15° S. Lat. The western Cordillera is the loftiest, and forms a continuous line of summits. Between it and the central range is the valley of the Upper Marañon. The eastern range separates the valley of the Huallaga from that of the Ucayali. The *Knot of Pasco* and *Huanaco*, 11,800 feet, about 10° S. Lat., unite the central and western ranges, which again diverge. Nevada de Sasaguanca, north-east of Lima, is 17,904 feet high. Between the western and central ranges, south of the Table Land of Pasco, is the valley of the Jauja, a feeder of the Apurimac. In the eastern ridge, Vilcanota, south-east of Cusco, rises to the height of 17,525 feet.

(c.) *The Andes of Bolivia* extend, in two great ranges, from the great mountain *Knot of Cusco* to that of *Potosi*, or from about 15° to about 21° S. Lat., and enclose the Table Land of Bolivia. The chief summits in the western chain, or *Cordillera of the Coast*, are: Chiquibamba, 21,000 feet; Arequipa, 20,320 feet; Sahama, 22,350 feet; Gualatieri, 21,960 feet; and in the eastern chain, or *Cordillera Real*, Sorata or Ancocuma (15° 30' S. Lat.), 24,812 feet, the highest summit of the Andes; Illimani, or White Mountain, 21,140 feet; Chocobamba, 17,073 feet; and Cerro de Potosi, 16,152 feet. In this section there are 14 volcanoes, of which three are active. The height of the snow-line is 18,000 feet.

(d.) *The Andes of Chili* extend, in a single range, from 21° to 42° S. Lat., with a breadth of about 10 miles. The chief summits are: Aconcagua, 22,422 feet; Tupungato, 22,016 feet; Maypu, 17,662 feet; Chilian, 13,100 feet; Antuco, 9242 feet; Villrica; and Osorno, 7443 feet. The height of the snow-line in the south is about 8600 feet.

(e.) *The Andes of Patagonia* extend in a single chain from 42° S. Lat. to the Strait of Magellan. Height from 3000 to 8000 feet. The chief summits are: Minchinmadon, 7993 feet; Yanteles, 8030 feet; Mellimoyu, 7400 feet; San Clemente; and Stokes, 6400 feet.

In the Chilian and Patagonian Andes there are 24 volcanoes, of which 13 are active.

Across the Strait of Magellan the high land is continued in *Tierra del Fuego*. Highest summit, Mount Darwin, 6800 feet.

(B.) *The Mountain System of Parimé* is enclosed by the Orinoco, the Rio Negro, the Amazon, and the Atlantic. Seven ranges, besides groups of mountains, extend in a direction generally from east to west.

The principal chains are: the *Sierra Imataca* towards the north, between the Orinoco and the Cuyuni; the *Sierres Parimé* and *Pacarima*, near the centre, between the tributaries of the Orinoco and the Rio Negro; and the *Sierra Acarai*, in the south, between the tributaries of the Amazon and the Essequibo, and separating Guiana from Brazil. Highest summits: in the west, Duida or Yconnamari, 8823 feet, and Maravaca, 10,500 feet; and Mount Koraima, 8500 feet, in the east of the Sierra Parimé.

(C.) *The Mountain System of Brazil* is enclosed by the Amazon, the Madeira, the Paraguay, the Rio de la Plata, and the Atlantic, and extend from 5° to 25° of south latitude, and their extreme breadth may be about 1000 miles. The ranges are of moderate height, and occupy a great breadth of country, forming an irregular plateau, bristled with sharp edges running nearly parallel to the eastern coast. The ranges run in a direction generally from north-east to south-west; the principal ones are:—

(a.) *Sierres Timba* and *Espinhaço*, between the Atlantic and the San Francisco. Highest summits of the latter: Itambe, 5755 feet; Piedade, 5830 feet; Itacolumi, 5750 feet.

(b.) *The Sierra do Mar*, or *Coast Range*, south of *Sierra Espinhaço*, forms the south-east edge of the Brazilian plateau; somewhat further inland is a higher range, the different parts of which have different names, but it is best known as the *Sierra de Mantiquiera*. In the neighborhood of Rio de Janeiro it bears the name of *Sierra Orgaos* (Organ Mountains), in which is the point *Morro dos Cundos*, 4476 feet high. The *Sierra do Mar* and the *Sierra Orgaos* are called the Brazilian Andes.

(c.) *The Sierra Tabatinga*, between the San Francisco and the Tocantins. Towards the north, it forks into the *Sierra Irmaos*, which divides the waters of the San Francisco and the Paranyhyba, and the *Sierra Mangabeiras*, which divides those of the Paranyhyba and the Tocantins.

(d.) *The Cordillera Grande* and the *Sierra Santa Martha* between the Tocantins and the Araguay.

(e.) *The Sierra de los Vententes*, forming the water-parting between the tributaries of the San Francisco and the Amazon on the north, and those of the Parana and the Paraguay on the south, is a transverse chain, extending from sixty miles south of Villarica, to near the confluence of the Mamore and Beni. Its western parts are named *Sierra Pareicis* and *Cordillera Geral*. Its greatest height is 3500 feet.

(f.) *The Sierra Amambahi*, between the waters of the Parana and Paraguay.

### (2.) The Plateaus.

#### 1. The Chief Plateaus of the Andes.

(a.) *The Plateau of Bogota* is a plain about 9000 feet above the level of the sea.

(b.) *The Plateau of Quito* is 200 miles long and 30 miles wide. Its mean altitude is 10,000 feet. The city of Quito, built on the side of Pichincha, is 9534 feet above the level of the sea. Eleven volcanoes are visible from the city.

(c.) *The Plateau of Pasco*, in Peru, is the highest inhabited part of the Andes. It is about 60 miles long from north to south. It is celebrated for its silver mines. It contains Lake Lauricocha, 14,000 feet above sea-level, one of the sources of the Amazon.

(d.) *The Plateau of Bolivia*, or *Table-land of Desaguadero*, is 400 miles long, and from 30 to 60 miles wide. Its greatest height above the level of the sea is 12,000 feet. Its area is estimated at 150,000 square miles. It extends from the great knot of Vilcanota to the transverse mountain group of Lipez, between the Cordillera of the Coast and the Bolivian Cordillera or Cordillera Real. Lake Titicaca, the largest lake of South America, occupies the northern part of the plateau. The lake is 12,488 feet above the sea, and is the highest navigable lake in the world. The great salt plain called *La Pampa de Salinas* occupies the central portion of the plateau. Its area is 3000 square miles. In the southern part of the plateau is a sterile region, 70 miles long, called the *Salina de Atacama* or *Desiertos*.

(e.) *The Plateau of the Chilian Andes* between 22° and 28° S. Lat., is called the *Despoblado Andes*, a desolate saline region between 12,000 and 13,000 feet above the sea.

NOTE.—The whole of the high valley between the Cordilleras of the Peruvian and Bolivian Andes is called, in the Quicha language, the *Puna*, or short respiration, and by the Spaniards, *Despoblado*, or uninhabited region.

#### 2. The Chief Plateaus on the east side of the Continent.

(a.) *The Plateau of Parimé* extends between 600 and 700 miles from east to west. Its height above sea level does not exceed 2000 feet. It is enclosed by the Orinoco, Rio Negro, Amazon, and the Atlantic Ocean. It is crossed by seven principal ranges of mountains.

(b.) *The Plateau of Brazil* is a vast table-land of triangular shape, enclosed by the Amazon, Madeira, Paraguay, La Plata, and the Atlantic Ocean. It extends about 2000 miles from east to west, and its mean elevation is from 2500 to 3000 feet above the sea. At the head waters of the Parana it forms a *pampa*, or grassy plain.

#### (3.) The Plains.

(A.) *The Llanos* (Spanish, level fields), or *Flains of the Orinoco*, extend from the mouth of the Orinoco to its tributary the Guaviare, between the Sierra Costanera and the eastern chain of the Columbian Andes to the north and west, and the mountain system of Parimé to the south and east. They occupy an area of 160,000 square miles, and at the distance of 450 miles from the sea have an elevation of only 162 feet. During the rainy season—from April to October—the plains are flooded, and when the water has subsided they become rich pasture grounds; but as the dry season advances, they are scorched with heat, and again become desolate sandy wastes.

(B.) The *Sébas* (Port. *selva*, a wood), or forest-covered plains of the Amazon, extend from the mouths of the river across the continent to the base of the Andes. They vary in breadth from 350 to 800 miles. Their area is estimated at 1,500,000 square miles. At the confluence of the Rio Negro and the Amazon the elevation of the plains is only 130 feet. Impenetrable forests cover the country.

From the parallel of 12° S. Lat. an immense valley extends as far south as the parallel of 22° S. Lat., between the Andes on the west and the mountains of Brazil on the east. The average breadth of this longitudinal valley is 200 miles. It unites the plains of the Amazon and of the Rio de la Plata. The *Pampa de Moxos* is a level tract in it, having numerous lakes, and is supposed to be the partially dried-up bed of a great lake. Farther south, between 18° and 20° S. Lat., are the *Pantanos*—swamps covered with coarse grass and rushes.

(C.) The *Pampas* (Quicha, *plains*) extend from 22° S. Lat. to the Rio Negro, and from the banks of the Parana to the eastern base of the Andes. Their area is estimated at 880,000 square miles.

The tract of country immediately west of the upper Paraguay is called the *El Gran Chaco* or *Chacu* (an Indian name for the lair of wild beasts). Between the Paraguay and the Vermejo the plain is covered with woods and pasture, but between the Vermejo and the Salado it is a desert. To the south west of the Gran Chaco is the *Gran Salina*, a salt desert only a few feet above sea level. Between the Salado and the Rio Negro (30° to 40° S. Lat.) are the *Pampas de Buenos Ayres*, vast plains covered for the greater part with clover and thistles of immense size, interspersed with swamps and saline tracts.

In the northern part of the Entre Rios, between the Parana and Uruguay, is a vast impassable swamp, 1000 square miles in extent, called the *Ybera Lagoon*.

(D.) The *Patagonian Steppe* extends from the Rio Negro to the Strait of Magellan. It consists of a series of terraces which rise gradually from the Atlantic to the Andes. It is an arid and sterile region.

(E.) The *Pacific Slope* is a belt, varying in width from 20 to 100 miles, between the Andes and the Pacific. In Southern Chili, and north of the Gulf of Guayaquil, it is fertile. Between the Gulf of Guayaquil and the valley of Copiapo (from 3° to 27° S. Lat.) it is a rainless and barren strip of land.

(4.) The Rivers may be arranged as follows :

### I. The Caribbean System.

(A.) The *Rio Magdalena* rises in about 2° N. Lat., at the divergence of the Cordillera of Suma Paz (the eastern chain) from the Cordillera of Quindiu (the central chain), and enters the Caribbean Sea by several mouths. Length of basin, 700 miles; area of basin, 72,000 square miles.

(a.) The *Rio Cauca*, from Popayan, is its chief tributary. It flows between the Cordillera of Quindiu and the Cordillera of Choco (the western chain).

### II. The Atlantic System Proper.

(1.) The *Orinoco* rises (2° 30' N. Lat., 64° 56' W. Long.) on the southern side of the Parimé mountains, about 200 miles east of the elevated Peak of Duida. From the *Chiguire* and the *Gehette* it flows westward to San Fernando de Atabapo, where it is joined by the *Guaviare*. It then turns off abruptly in a northerly direction. From the mouth of the *Apure* it flows eastward to the Atlantic, which it enters by about fifty channels. The branches of the delta begin 130 miles from the mouth of the river, and flow northward from the main channel, which is called the *Boca de Navios*. Tidal influence is felt at Angostura, 250 miles from the mouth of the river. Length of basin, 1000 miles; area of basin, 250,000 square miles.

(a.) The chief tributaries of the Orinoco on the right bank are, the *Ventuari*, *Caura*, *Paraguaya*, and *Caroni*, from the Parimé mountains.

(b.) On the left bank, the *Guaviare*, *Meta*, and *Apure*.

(c.) Near the south base of the Peak of Duida, the *Cassiquiare*, a remarkable river, 150 miles long, leaves the Orinoco, and joins the Rio Negro, one of the tributaries of the Amazon.

NOTE.—Between the *Guaviare* and *Meta* are the celebrated cataracts or *Raudales* of Maypures and Ayres, 35 miles apart, which are heard at the distance of many miles. (A *Raudal* (Span) is a kind of cataract consisting of a number of small cascades succeeding each other like steps, and is formed by an archipelago of islands and rocks in the channel of a river.)

(2.) The *Esequibo* rises in the Sierra Acaari, in the south of British Guiana. Its general width is a mile and a quarter. It flows through forests of gigantic trees, and enters the Atlantic near 7° 11' N. Lat. It is 14 miles wide at the mouth, which is separated by three islands into four branches. On one of its tributaries is a remarkable cataract, 200 feet high. The tide ascends 50 miles. Length of basin, 400 miles; area of basin, 61,650 square miles.

The *Demerara* and *Berbice*, east of the Esequibo, give names to Districts of British Guiana.

(3.) The *Corentyn* rises in the Sierra Acaari, in the north of Brazil, and flows northward between British and Dutch Guiana. It is navigable for 150 miles. The tide ascends 70 miles. Length, 450 miles; area of basin, 20,000 square miles.

(4.) The *Sirinam* is the chief river of Dutch Guiana, to which it gives its name. Length, 150 miles; area of basin, 12,000 square miles.

(5.) The *Maroni* or *Maramba* flows north, separating Dutch from French Guiana. Length, 400 miles; area of basin, 18,000 square miles.

(6.) The *Amazon*, the chief river of South America, is the greatest river of the world, both as regards volume of water and area of basin. It is over 4000 miles long. In a direct line its basin measures 2100 miles, and has an area estimated at 2,100,000 square miles. Its navigable waters are 50,000 miles. Its general course is north through Peru, east between Bolivia and Peru, and east through Brazil to the Atlantic. Its estuary is 200 miles long and 180 miles wide. The chief estuary maintains the direction of the river, but a large branch encircling the great island of Joannes or Marajo forms a secondary estuary called the *Rio Para*. The force of the current is felt 300 miles out at sea. The tide ascends 576 miles, and at full moon rushes up the channel in a succession of waves from 10 to 15 feet high. This phenomenon is called the *bore*.

(4.) The Amazon is formed by the union of the (a.) *Marañon* and the (b.) *Ucayali*.

(a.) The *Marañon* or *Maranhao* issues from Lake Laurichoca, on the plateau of Peru, north of the Knot of Pasco, in about 10° 30' S. Lat. and 76° W. Long., at an elevation of more than 14,000 feet. Its chief tributaries are the *Ucayali* from the north and the *Huallaga* from the south. The Pastaza is navigable by steamers to within 150 miles of Quito. The Huallaga is 1000 miles long and rises in a lake south-east of Lake Laurichoca.

(b.) The *Ucayali* is formed by the union of the *Apurimac* and *Urubamba*, and is the headstream of the Amazon. At its confluence with the Marañon (4° 45' S. Lat.), after a course of 1080 miles, it is 300 feet deep. The Apurimac rises in the Peruvian province of Tinta (16° S. Lat.), and drains the central and western part of the plateau of Peru. The Urubamba rises nearly as far south as the Apurimac, which it joins in 8° S. Lat. Above this point it is navigable by large vessels to the great cataract called Vuelta del Diablo.

(B.) The Amazon has two hundred tributaries, twenty of which are great rivers. With its tributaries, it affords 50,000 miles of inland navigation. It is navigable from the ocean to the *Pongo de Manseriche* between Santiago and San Borja (76° 25' W. L.). This celebrated Pongo is seven miles in length, and less than 160 feet in breadth. At the foot of the narrows, the river surface is 1164 feet above the sea, and the stream varies from a half to a mile in width.

NOTE.—*Pongo* is the name given by the natives to River Narrows, and is a corruption of the word *Pancho*, which, in the Quicha language, signifies a door or gate.

(C.) The chief tributaries of the Amazon from the north are the *Napo*, *Putumayo* or *Ica*, *Yupura*, and *Rio Negro*.

(a.) The *Putumayo*, 1000 miles, flows from the Andes of Quito.

(b.) The *Yupura*, 1200 miles long, rises in the Cordillera in the south of the States of Columbia, forms in its course the cascade of Santa Cruz, and afterwards spreads out to join the Amazon by several channels.

(c.) The *Rio Negro*, called by the natives the *Guainia*, is the largest northern tributary of the Amazon, being nine miles broad above its junction with that river. It is formed by the union of the *Ucayari* and *Negro*. The *Rio Branco* from the Parimé Mountains is the chief tributary of the Rio Negro.

(D.) The chief tributaries of the Amazon from the south are the *Yavari*, *Purus*, *Madeira*, *Tapajós*, *Xingu*, and the *Tocantins*.

(a.) The *Yavari*, 1000 miles long, forms the boundary line between Peru and Brazil, and joins the Amazon at Tabatinga (70° W. Long.), 264 feet above sea level.

NOTE.—The upper part of the Amazon, as far as the Yavari, is called the *Marañon*, thence to the mouth of the Rio Negro, the *Solimões*, thence to its mouth, the *Amazon*.

(b.) The *Purus* is 1200 miles long. It rises near 11° S. Lat. Its course is a tortuous one to the north-eastward. It is navigable for large vessels nearly as far west as 66° W. Long. Its chief tributary, the *Aquiri*, can be navigated by small vessels for 300 miles.

(c.) The *Madeira*, 2000 miles long, is the greatest tributary of the Amazon. It is formed by the junction of the *Beni* and *Mamoré* from the Andes of northern Bolivia.

NOTE.—After the Amazon is joined by the Madeira it is three miles wide, and 150 feet above sea level. It maintains this level as far as Obiclos, beyond which the tide does not ascend. The general depth below the Madeira is from three to four hundred feet.

(d.) The *Tapajós*, 1200 miles, is formed by the junction of the *Arimos* and *Juruema* from the Cordillera Geral. It flows north and joins the Amazon at Santarem. It is navigable to within a short distance of its source.

NOTE.—At Santarem the Amazon is only fifty feet above sea level.

(e.) The *Xingu*, 1300 miles, rises near 15° S. Lat., and flows north. In 4° S. Lat. it makes a great bend. Where it joins the Amazon, it is four miles wide.

(f.) The *Tocantins* has many head streams south of Villalobos or Goyaz (16° S. Lat.). It has a northern course, and where it joins the Amazon is fifteen miles wide. It is the most easterly tributary of the Amazon, and is navigable throughout nearly its whole length. Its chief tributary, the *Araguay*, joins it at 6° S. Lat., and from 2° S. Lat. the united stream is called the *Para*. Length of basin, 1260 miles; area of basin, 294,480 square miles.

NOTE.—In 12° 50' S. Lat. the *Araguay* divides into two nearly equal branches, which, after separating more than 50 miles, reunite below 10° S. Lat., enclosing *Banana* or *Santa Anna* Island, one of the largest river islands in the world.

(7.) The *Paranahyba* flows north-north-east, and enters the Atlantic by several mouths. Length of basin, 650 miles; area of basin, 115,200 square miles.

(8.) The *San Francisco* rises at an elevation of 3000 feet above sea level in the Sierra Canastra, and flows north and east through a long valley of an average width of 150 miles. It is the boundary line between the provinces of Bahia and Pernambuco. In its course there are many rapids. Length of basin, 900 miles; area of basin, 187,200 square miles.

(9.) The *Parana*, formed by the union of the *Paranahyba* and the *Rio Grande*, rises in Brazil. It flows south-west and west, forming the eastern and southern boundaries of Paraguay. At Corrientes it turns in a southern direction, and after passing Santa Fé, flows south-east to its estuary, the *Rio de la Plata*. Length, 2400 miles; area of basin, 1,200,000 square miles. Navigable waters, 20,000 miles.

NOTE.—The estuary of the La Plata is 180 miles long, and at its entrance 130 miles wide.

(A.) The chief tributary of the Parana on its left bank is the *Uruguay*.

(a.) The *Uruguay*, so called from the turbulence of its waters, rises in the Sierra do Mar, in Brazil, about 75 miles from the Atlantic. It flows west and south, forming the boundary between the province of Rio Grande do Sul and the State of Uruguay on the east, and the Argentine departments of Corrientes and Entre Rios on the west, and joins the Parana at the head of the La Plata, after a course of about 1000 miles. It is navigable to the Salto Grande, the last great fall in its course, about 200 miles from its mouth. Its chief affluents are the *Ibicuy* and the *Rio Negro* from the east.

(B.) The chief tributaries of the Parana on its right bank are the *Paraguay* and the *Salado*.

(a.) The *Paraguay* rises in seven small lakes in the Sierra dos Vertentes, in the Brazilian province of Matto Grosso. It flows south between Bolivia on the west, and Brazil and Paraguay on the east. It unites with the Parana, north of Corrientes. It is navigable 150 miles from its source. Total length, 1200 miles. Its chief affluents from the east are the *San Lorenzo* and the *Taguary*. From the west it receives from the Bolivian Andes the *Pilcomayo* at Ascension, and the *Vermejo* just before it unites with the Parana.

(b.) The *Salado* rises on the southern edge of the Desplado region, flows south-east, and joins the Parana near Santa Fé.

(10.) The *Colorado*, or *Mendoza*, or *Cobu Leofu*, from the Chilian Andes, flows south-east through the Argentine Republic to the Atlantic. Length, 600 miles.

(11.) The *Rio Negro* or *Limay Leofu* rises in two chief branches in the Andes, and flows south-east to the Atlantic. Length, 800 miles.

### III. The Pacific System.

In this system the streams are numerous but short, owing to the narrowness of the country between the Andes and the Pacific.

(1.) In Chili, the principal stream is the *Rio Biobio*.

(2.) In Ecuador, the *Guayaquil* is navigable for 70 miles.

### IV. The Continental System.

This system extends from Lake Titicaca to the Rio Colorado.

(1.) The *Desaguadero* issues from Lake Titicaca, and flows south-east to Lake Aullagas or Poopo Choro, which has no outlet. Length, 216 miles.

(2.) *Rio Dulce* or *Honda* flows south-east through the Argentine Republic to the salt Lake of Porongos.

(1.) *Vermejo* flows into Lakes Guanacache and Silvero.

(1.) *Desaguadero* connects Lake Silvero and Lake Bevedero.

(5.) *Tumuyan* is the main feeder of Lake Bevedero.

(6.) *Nuco Salado* is a branch from the *Tumuyan*, and continues the chain to the most southern lake, named Utr. Lanquen.



NATIVES NAVIGATING LAKE TITICACA.

### (5.) The Lakes.

(1.) *Lake Maracaybo*, in the north-west of Venezuela, is connected with the Caribbean Sea by a narrow channel, 12 miles long. Area, 5000 square miles.

(2.) *Lake Dos Patos*, in the south-east of Brazil, is connected with the Atlantic Ocean by a channel, named the *Rio Grande do Sul*. Area, 5000 square miles.

(3.) *Lake Merim* is partly in Brazil and partly in Uruguay.

(4.) *Lake Titicaca* (cat-rock), on the table land of Bolivia, the highest navigable lake in the world, is 12,488 feet above sea level. Length, 170 miles; breadth, 70 miles; area, 4000 square miles.

(5.) *Lake Aullagas* (*Poopo Choro*, *Uros*, or *Pansa*) is a salt lake about 216 miles south-east of Lake Titicaca, whose surplus waters it receives by the Desaguadero River.

(6.) The salt Lake of Porongos, (7.) Lake Guanacache, (8.) Lake Silvero, and (9.) Lake Bevedero are the chief lakes between the Parana and the Andes.

(10.) The *Ybera Lagoon* is a vast impassable swamp between the Parana and Crugway Rivers, more than 1000 square miles in extent. During the rainy season it becomes an inland sea, covering thousands of square miles.

(11.) *Lake Xarayes* is formed by the overflow of the Paraguay, in Brazil, about 20° S. Lat. The inundations during three months cover a surface as large as Lake Superior to the depth of ten or twelve feet. Much of the water is never carried off, but forms extensive lakes abounding in fish.

### 9. Vegetation.—

The chief products include almost all grains and fruits. Among indigenous plants are maize and tobacco; the mandioca, or cassava tree, from which we obtain tapioca; the cacáo, or cocoa tree, from which we obtain chocolate; the guáva, which resembles a small pomegranate, is used in making jelly; the cinchona, or Peruvian bark tree; the potato of the Andes; the caoutchouc, from the sap of which india rubber is made; the maté or Paraguay tea plant; the cow tree of Guiana; the ivory-palm; and many other kinds of palm trees; rosewood, mahogany, and dye woods. Other important products are cotton, coffee, rice, sugar, indigo, cinnamon, vanilla, and all tropical spices and fruits.

10. Minerals.—South America is celebrated for its mineral productions, which include gold, silver, iron, copper, platinum, lead, mercury, tin, zinc, coal, sulphur, salt, marble, and precious stones.



CACAO.



MANDIOCA.



THE VEGETABLE-IVORY PLANT.

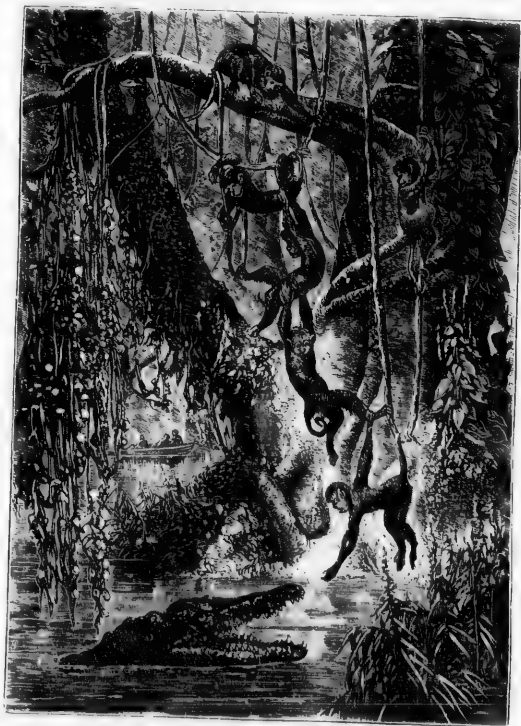


CAJU NUT, USED FOR MAKING WINE.



GUAVA, USED FOR MAKING JELLY.

**II. Animals.**—In the forests are found the tapir, the largest animal of South America, the jaguar, the puma, many kinds of monkeys, the armadillo, the sloth, the hairy ant-eater, and many kinds of serpents, including the boa-constrictor. Alligators and other reptiles abound in the marshy lands bordering the rivers. The llama and the alpaca are peculiar to the Andes. Among the birds may be named the humming-bird, the parrot, the penguin, the nandu or emu or American ostrich, and the condor of the Andes, the largest bird that flies.



MONKEYS AND ALLIGATOR.

**12. Inhabitants.**—The aborigines of South America were Indians, and in Peru, at the time of the Spanish conquest, had attained a standard of civilization which excited the astonishment of their European conquerors. The present population of South America consists of Indians, whites (mostly Spanish or Portuguese descent), Negroes, and mixed races. In a large part of the continent Indians are still the only inhabitants. They are principally savages. Negroes are numerous among the white inhabitants, who form about one-third of the population. The inhabitants of the Pampas are partly Indian, and are called Gauchos or countrymen.

## 1. UNITED STATES OF COLUMBIA.

Columbia, from Columbus. Size, equal to a square of 566 miles.

**1. Noted For.**—Columbia is noted for its celebrated Isthmus of Panama, which is also called Darien, and for its emerald mines.

**2. Extent.**—The republic of the Columbian Confederation (which comprises nine States) extends from Costa Rica (83° W. Long.) to the Gulf of Maracaybo, on the Caribbean Sea, and to the mouth of the Mira, on the Pacific coast.

**3. Physical Features.**—The threefold range of the Andes, which stretches from the north, unites into one at the boundary of Ecuador, forming the Knot of Pasco. Within these ranges, the Magdalena River with its tributaries flows for 1000 miles northward to the Caribbean Sea. Along the eastern range, the tributaries of the Orinoco River take their rise; and some of the tributaries of the Amazon water the extensive plain at the south. The soil is fertile, and the grass plains, or llanos, give pasture to immense herds of wild cattle and horses.

**4. The Chief Exports** are the usual tropical products, medicinal herbs, hides, tallow, salt, gold, silver, iron, platinum, and emeralds.

**5. The Isthmus of Panama** belongs to the United States of Columbia, and is now a passenger route by railway between Aspinwall, on the Caribbean Sea, and Panama, on the Pacific Ocean.

**6. Cities.**—Bogota (50,000), the capital, lies on the fertile plateau of the Eastern Andes, 8863 feet above the sea, and is well built. It is subject to earthquakes. Near it are famous emerald mines, and the celebrated Falls of Tequendama, on the Bogota River, 650 feet high. Cartagena (18,000) is the principal seaport. Popayan (16,000), on the Cauca, is a large, handsome city. Aspinwall and Panama are important ports, 45 miles apart, the former on the Atlantic, the latter on the Pacific, side of the Isthmus of Panama.

## 2. REPUBLIC OF VENEZUELA.

Venezuela, Little Venice. So called by Vespucci, who found a village on Lake Maracaybo\* built on piles. Size, equal to a square of 663 miles.

**1. Noted For.**—Venezuela is noted for its llanos (grass plains).

**2. Position.**—This republic, of thirteen provinces, founded in 1831, lies east of Columbia.

**3. Physical Features, etc.**—The Parimé Mountains extend along the south, and the Sierra Pacaraima Mountains along the north, enclosing the richly fertile valley of the Orinoco River. The extensive llanos slope towards the mouth of this fine river. Salt, coal, and copper are abundant.

**4. The Chief Exports** are tropical produce, cattle, hides, horns, and pearl oysters.

**5. Cities.**—Caracas (50,000), the capital, is about thirteen miles from La Guayra, its port, on the north coast. Valencia (20,000), the second city in size, has active commerce. Cumana (9500) and Maracaybo (22,000) are the chief ports. Angostura is on the Orinoco. Varinas lies inland.

## 3. BRITISH, 4. FRENCH, AND 5. DUTCH GUIANA.

From Guayanoes, a native Indian tribe. Size, equal to a square of 422 miles.

**1. Noted For.**—Guiana is noted for its fertility, spices, and dyewoods, and for its belonging to three European powers.

**2. Extent.**—It extends from Venezuela to the Oyapok River, and from the Atlantic to Brazil.

**3. British Guiana** lies between Brazil and the River Corentyn, and includes the districts of Demerara, Essequibo, and Berbice. The coast-line is low and sandy, and, like Holland, it is banked to keep out the sea. The first elevations are sand hills: behind them the land is undulating. The interior is diversified by chains of mountains. In the Pacaraima, the loftiest range, an elevation of 8500 feet (Mount Roraima) is attained. The Sierra Acara chain is densely wooded.

**4. Climate, Products, &c.**—There are two wet and two dry seasons. During the dry seasons the climate is agreeable. There are violent thunder-storms, but no hurricanes. Vegetation is luxuriant. The pine apple, the tamarind, and other tropical fruits abound. Chief exports: sugar and rum.

**5. Chief Towns.**—Georgetown, the capital, at the mouth of the Demerara; N. Amsterdam, Berbice, and Demerara.

**6. French Guiana** is the eastern portion, and lies between the rivers Maroni and Oyapok. The soil is fertile and well watered; but the climate is not so healthy as in other parts of Guiana. Cayenne, the capital, is on an island of that name. Exports: pepper and spices.

**7. Dutch Guiana** separates French from British Guiana. Its physical features are similar to those of British Guiana. Surinam is the principal river, and gives a name to the colony. Paramaribo, the capital, on this river, is five miles inland, Fort Zelandia, near the capital, is the residence of the Dutch Governor General.

\* Lake Maracaybo is an inland extension of the Gulf of Venezuela.



## 6. EMPIRE OF BRAZIL.

From *brasil*, the name of the red wood of the country. Size, equal to a square of 1854 miles.



DIAMOND MINES.

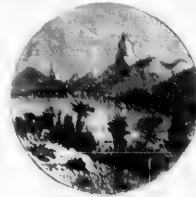
1. **Noted For.**—Brazil is noted for its great River Amazon, and for being the most extensive state of South America. Its luxuriant forests; its wild animals, and birds of brilliant plumage; its gold and diamond mines, and its tropical productions, and luxuriant vegetation.

2. **Boundaries.**—Brazil is bounded on the north by the United States of Columbia, Venezuela, Guiana, and the Atlantic Ocean; on the east by the Atlantic; on the south by Uruguay; and on the west by the Argentine Republic, Paraguay, Bolivia, Peru, and Ecuador.

3. **Physical Features.**—This extensive country is drained chiefly by the noble River Amazon. A range of mountains separates the empire from Venezuela and Guiana at the north; and another, at the south, with numerous branches, separates the tributaries of the Amazon from those of the La Plata. There are very few high mountains; but vast plains occur between the rivers, and dense forests in the interior.

4. **Soil, Climate, and Products.**—The soil is rich and fertile, and, except at the equator, north of the Amazon, the climate is mild and agreeable. The luxuriant forests are filled with almost every kind of dangerous animals, reptiles, and insects, and with birds of brilliant plumage. The extensive plains are the abodes of wild cattle and horses. Of trees, the palm species predominates; but flowering trees and shrubs are met with in all their gorgeousness and variety. The chief exports are coffee, sugar, cotton, tobacco, rice, india rubber, hides, tallow, horns, drugs, and dye and other woods. The diamond mines of Brazil are among the richest in the world. Its mineral wealth is also great. Iron of superior quality is abundant; and salt also is extensively produced in saline marshes, by the alternate processes, according to the season, of inundation and evaporation.

5. **Cities.**—Rio de Janeiro (January River), the capital, and the largest city in South America, is situated on a fine bay of that name. For situation and commercial facilities, this city is one of the finest in the world. The harbour, bay, and mountain scenery are highly picturesque. The city is supplied, by a noble aqueduct, with abundance of water. The churches, charitable institutions, and other public buildings are numerous. Its staple export is coffee. *Para, Coimbrá, and Maranhão* are at the north. *Pernambuco* (116,000), the third largest seaport of the empire, near the middle of the coast, seat of a University. *Bahia* (120,000), on All Saints Bay, the second largest seaport of the empire, is a large commercial city and seaport. Its staple export is sugar. *San Paulo*, west of Rio de Janeiro, is a place of considerable trade. *Brasília* (100,000), northward of Rio Janeiro, is the centre of the mining district. *Pirapora*, one of the principal cities of the diamond district. *Minas Geraes* (100,000), north of Ouro Preto, is the capital of the diamond district. *Recife* (100,000), on the coast, is one of the principal cities of the empire.



HARBOR OF RIO.

One of the principal cities of the diamond district. *Minas Geraes* (100,000), north of Ouro Preto, is the capital of the diamond district. *Recife* (100,000), on the coast, is one of the principal cities of the empire.

6. **Government.**—Brazil was a Portuguese colony until 1808; then an independent kingdom; and in 1889 became an empire. The government is an hereditary constitutional monarchy. The emperor is invested with executive power. The legislative power is vested in a bicameral assembly, consisting of a Chamber of Deputies elected by the people. Brazil is divided into twenty-one provinces.

## 7. REPUBLIC OF ECUADOR.

From *Ecuador*; the capital of the country being almost under the Equinoctial line. Size, equal to a square of 504 miles.



QUITO, FROM THE NORTH.

1. **Noted For.**—Ecuador is noted for its volcanic mountains.

2. **Position.**—It lies west of Brazil, on the Pacific coast.

3. **Physical Features.**—The Andes runs in a double range, 20 miles apart and 100 miles inland. Some of its loftiest peaks are to be found here, viz.: the celebrated Chimborazo, Cayambe, Antisana, and the truncated volcanic cone of Cotopaxi. Six or eight others higher than Mont Blanc occur, all within a distance of 250 miles. Owing to the deep valleys in the mountain ranges, and the high table lands, the climate and products vary a good deal, and combine those of Brazil and Columbia. On the plains of Quito there is perpetual spring.

4. **Cities.**—Quito, the capital, a handsome city, lies almost under the equator, on the side of the extinct volcano of Pichincha, 9,520 feet above the sea. Its churches, college, and charitable institutions are fine structures. Eleven snow peaks are within sight of the city. It has suffered much from earthquakes. *Cuenca* (100,000), the seat of a university, and *Asunción* (100,000), with gold and silver mines, are on the eastern slope of the Andes. *Guayaquil* (100,000) is the chief commercial city and seaport of Ecuador.

5. **Divisions.**—Ecuador was formerly divided into three departments, viz.: Quito, Guayaquil, and Asunción. It is now divided into ten Provinces.



ASCENDING THE ANDES.

## 8. REPUBLIC OF PERU.

Size, equal to a square of 712 miles.

1. **Noted For.**—Peru is noted for its silver and other mines, its medicinal bark, its guano, and its great length of Pacific coast.

2. **Position.**—It lies south of Ecuador, on the Pacific coast.

3. **Physical Features, etc.**—One-third of the principal range of the Andes is within the borders of Peru. A second parallel range is divided into two by the Ucayali River and tributaries, which run northward to the Amazon. About half of Peru is a mountainous region; the other half is sandy, with many fertile table lands and valleys. Peru is rich in minerals; and these, with Peruvian bark, indigo, chinchilla fur, and guano, are the chief articles of export.

4. **Cities.**—Lima, on the coast, is the capital. A railway connects it with *Callao* (38,000), its seaport, seven miles distant. It is a regular and well-built city. Principal buildings: the Cathedral, the Convent of San Francisco, the Palace, the University, and the Senate House.

*Pasco*, in the interior, the highest city in the world, being 13,720 feet above the sea, is noted for its rich silver mines. *Cuzco* (46,000), the ancient capital of the empire of the Incas, and *Arequipa* are in the mountain region. *Arica* is the principal seaport of Southern Peru.

## 9. REPUBLIC OF BOLIVIA.

Named after Simon Bolivar, who liberated it from the Spaniards in 1825. Size, equal to a square of 307 miles.

1. **Noted For.**—Bolivia is noted for its extensive plains; and for its desert of Atacama, on the Pacific coast.

2. **Position.**—This republic lies south of Peru, and between Brazil and the Pacific Ocean. Its position is almost inland.

3. **Physical Features, etc.**—This country possesses almost every variety of physical aspect, soil, and climate. An inner range of mountains runs southward, and parallel to the Pacific chain. Between these two ranges are the elevated lakes Titicaca and Aullagas. Titicaca is on the boundary of Peru, and was the seat of the Incas. The products and exports are similar to those of Peru.

4. **Cities.**—Oruro, the capital, is a fortified town situated north of Lake Aullagas. *Chuquisaca* or *Sucre* stands in a fine valley of a table land in the interior, and between two rivers flowing in opposite directions. It has a university and a fine cathedral. Near it is *Potosi*, 13,300 feet above the sea, famous for its silver mines, and *Cochabamba* (41,000) manufactures glass and cotton goods. *La Paz* (76,000), near Lake Titicaca, has a large transit trade.

## 10. REPUBLIC OF CHILI, OR CHILE.

Size, equal to a square of 322 miles.

1. **Noted For.**—Chili is noted for its narrow width and extensive coast line, and for its lofty mountain peaks.

2. **Position.**—It lies west of the Argentine Republic, on the Pacific coast.

3. **Physical Features, etc.**—Numerous hilly spurs jut out from the Andes toward the coast, forming deep ravines and many fertile valleys. In the Chilean Andes are numerous volcanoes. The rivers are short, but the Biobio is 200 miles long. The chief products are silver, copper, wheat, figs, olives, and grapes.

4. **Cities.**—Santiago, the capital, is in the centre of Chili, at the foot of the Andes. It contains a university. A railway connects it with *Vaiparai* 3, Vale of Paradise (101,000), the chief seaport. *Concepcion* and *San Carlos* on the island of Chiloe, are at the south. *Copiapó* (13,000), the most northern town, is the centre of a rich mining district.

## 11. ARGENTINE REPUBLIC (LA PLATA).

From Latin *argentum*, silver. Size, equal to a square of 1083 miles.

1. **Noted For.**—The Argentine Republic is noted for its vast plains or pampas, and for its herds of wild cattle and horses.



PATAGONIANS.

2. **Position.**—The Argentine Republic, including the territory of Buenos Ayres, extends from Bolivia on the north to Cape Horn on the south, and from the Atlantic on the east to the Andes on the west, and forms the great south-eastern slope of South America. Patagonia (Spanish, *patagon*, large foot) was formerly a separate country, but is now a part of the Argentine Republic, as well as the island of Tierra del Fuego (Land of Fire).

3. **Physical Features, etc.**—The interior is a vast plain; in its centre is an extensive saline desert, and in the southern part are the Pampas (or treeless plains), the habitation of immense herds of wild cattle and horses which are captured with the lasso by the shepherd hunters. Ostriches also abound on the pampas. The chief exports are hides, horns, horse tails, ostrich feathers, and wool. Buenos Ayres seceded from the Confederation in 1853, but rejoined it in 1860.



LASSING CATTLE ON THE PAMPAS.

4. **Cities.**—Buenos Ayres (from the Spanish for good breezes, on account of the salubrity of the climate), the capital, is on the Rio de la Plata. It is a well built city, with an extensive trade. *Parana*, the former capital, is on the river of that name. *Mendoza* (18,000), at the foot of the Andes, has important trade with Chili. *Salta* (12,000), on a branch of the Salado, is noted for its trade in hides and mules. *Punta Arenas* (1200), or Sandy Point, is situated on the Strait of Magellan.

## 12. REPUBLIC OF PARAGUAY.

Size, equal to a square of 303 miles.

1. **Noted For.**—Paraguay is noted for being entirely inland.

2. **Position.**—This republic lies between the Argentine Republic and Brazil.

3. **Physical Features, etc.**—Paraguay forms the high table land between the Parana and Paraguay Rivers, and is the only inland State in South America. The soil is fertile, and the climate temperate.

4. **Cities.**—Asunción, the capital, is situated at the confluence of the Pilcomayo and Paraguay; and *Concepcion*, on the Paraguay River. Their chief exports are the leaves of a species of holly called *yerba mate*, or Paraguay tea, hides, tobacco, and sugar.

5. **Population.**—Its population was formerly about 1,200,000; but a large proportion of the inhabitants were destroyed in the recent war with Brazil, and it now numbers only about 300,000.

## 13. REPUBLIC OF URUGUAY OR BANDA ORIENTAL.

Size, equal to a square of 269 miles.

1. **Noted For.**—Uruguay is noted for having been the eastern boundary (or *banda oriental*) of the regions formerly composing Spanish America.

2. **Position.**—This republic lies east of the Argentine Republic.

3. **Physical Features, etc.**—A double range of mountains from Brazil encloses the valley of the Rio Negro. The climate is humid but healthy, and the soil generally good. The exports are hides, tallow, wool, and dried beef.

4. **Cities.**—Monte Video, the capital, on the north side of the La Plata estuary, is well fortified. It is well and regularly built. *Maldonado* and *Colonia* are seaports.

## 14. FALKLAND ISLANDS AND SOUTH GEORGIA.

Size, equal to a square of 81 miles.

1. **Noted For.**—The Falkland Islands are chiefly noted as a rendezvous for British shipping in the Southern Atlantic.

2. **Position.**—These islands are situated 300 miles east of Patagonia. There are two large and about 200 smaller islands. East and West Falkland are separated by a narrow sound.

3. **Physical Features and Climate.**—The whole group of islands is much indented with bays, sounds, and harbours. The climate is equable and salubrious. There are no trees; but sweet-scented flowers abound. The chief products are cattle, horses, and vegetables. Yearly value of exports \$75,000; revenue \$45,000. This group was taken possession of by England for the protection of the southern whale fishery. Stanley is the capital.

South Georgia Island, to the east, belongs to Great Britain, but the climate is too cold for settlement, therefore it is uninhabited. The Falkland Islands and South Georgia together constitute the colony of the Falkland Islands.

## PART IV. EUROPE.

The name of Europe is supposed to be derived from the broad-browed Europa, daughter of Agenor, a Phœnician king; or from two Greek words, *eurus* and *ops*, signifying broad view; or from the Phœnician words *ur* *appt*, fair aspect or complexion; or from *ereb*, a Semitic word signifying the west or the land of sunset, to distinguish it from *Levant*, or the region of sunrise.



THE ANIMALS OF EUROPE.

**Europe**, though the smallest of the great land divisions of the earth in extent, is in regard to Christian civilization, extensive commerce, political influence, learning, science, arts, and manufactures, the most important division of the globe.

**1. Boundaries.**—Europe is bounded on the north by the Arctic Ocean; on the east by the Kara River, the Ural Mountains, the Ural River, and the Caspian Sea; on the south by the Caucasus Mountains, the Black Sea, the Sea of Marmora, the Mediterranean Sea, and the Strait of Gibraltar; and on the west by the Atlantic Ocean.

**2. Form.**—Europe is triangular in form, with its greatest extent from east to west.

**3. Position.**—Continental Europe extends from  $36^{\circ} 2'$  to  $71^{\circ} 10'$  N. Lat., and from  $9^{\circ} 30'$  W. Long. to  $65^{\circ}$  E. Long., and insular Europe from  $34^{\circ} 55'$  to  $80^{\circ} 45'$  N. Lat., and from  $31^{\circ} 15'$  W. Long. to  $65^{\circ}$  E. Long. The centre of the former is Grodno in Russia, and of the latter the south-east corner of Sweden.

**4. Extreme Points.**—North, *Cape Nordkyn*,  $71^{\circ} 10'$  N. Lat.; South, *Cape Tarifa*,  $36^{\circ} 2'$  N. Lat.; West, *Cape Roca*,  $9^{\circ} 30'$  W. Long.; East, the *Ural Mountains*,  $65^{\circ}$  E. Long. in Perm.

**5. Extent.**—(a.) The extreme length from Orsk in the Ural Mountains to Cape St. Vincent is 3400 miles. The extreme breadth from North Cape to Cape Matapan is 2450 miles.

(b.) The area of Europe, including the islands, is about 3,860,000 square miles, or is equal to a square of 1972 miles.

(c.) The length of the coast line is about 17,000 miles, or one mile of coast for 230 miles of surface.

**6. Population.**—The estimated population amounts to 315,000,000. The most densely peopled countries are Belgium, Holland, and Britain.

**7. Political Divisions.**—The European States are divided into three separate classes according to their political importance.

### (A.) THE FIVE GREAT POWERS.

| Name of State.               | Form of Government. | Position of State.               | Area in English sq. miles. | Population (about) | Capital.       | Lat. N.          | Long. E.            | Where Situated. | Population of Capital (about) | Distance from London in m. |
|------------------------------|---------------------|----------------------------------|----------------------------|--------------------|----------------|------------------|---------------------|-----------------|-------------------------------|----------------------------|
| 1. Great Britain and Ireland | Kingdom             | West of Central Europe           | 121,607                    | 34,250,000         | London         | $51^{\circ} 32'$ | $0^{\circ} 55'$ W.  | Thames          | 3,600,000                     | 215                        |
| 2. France                    | Republic            | South of England                 | 204,086                    | 36,000,000         | Paris          | $48^{\circ} 50'$ | $2^{\circ} 20'$ E.  | Seine           | 1,891,000                     | 568                        |
| 3. Germany                   | Empire              | East of France, Belgium, Holland | 208,432                    | 42,500,000         | Berlin         | $52^{\circ} 13'$ | $13^{\circ} 24'$ E. | Spree           | 1,015,000                     | 770                        |
| 4. Austro-Hungary            | Monarchy            | South-east of Germany            | 241,064                    | 37,700,000         | Vienna         | $48^{\circ} 12'$ | $16^{\circ} 23'$ E. | Danube          | 1,020,000                     | 770                        |
| 5. Russia                    | Empire              | North-east part of Europe        | 2,178,003                  | 76,300,000         | St. Petersburg | $59^{\circ} 56'$ | $30^{\circ} 19'$ E. | Neva            | 670,000                       | 1200                       |

### (B.) THE SECOND RATE POWERS.

|                                |         |                           |         |            |                |                  |                     |            |         |      |
|--------------------------------|---------|---------------------------|---------|------------|----------------|------------------|---------------------|------------|---------|------|
| 1. Spain (inc. Balearic Isles) | Kingdom | South-west of France      | 193,293 | 10,343,000 | Madrid         | $40^{\circ} 24'$ | $3^{\circ} 43'$ W.  | Manzanares | 385,000 | 800  |
| 2. Italy                       | Kingdom | South-east of Switzerland | 114,113 | 27,800,000 | Rome           | $41^{\circ} 54'$ | $12^{\circ} 27'$ E. | Tiber      | 235,000 | 890  |
| 3. Belgium                     | Kingdom | North of Holland          | 11,753  | 5,480,000  | Brussels       | $50^{\circ} 51'$ | $4^{\circ} 21'$ E.  | Senne      | 391,000 | 194  |
| 4. Sweden and Norway           | Kingdom | North-west of Russia      | 203,838 | 6,300,000  | Stockholm      | $59^{\circ} 20'$ | $18^{\circ} 4'$ E.  | Lake Malar | 160,000 | 851  |
| 5. Turkey                      | Empire  | South of Austria          | 130,372 | 8,870,000  | Constantinople | $41^{\circ} 0'$  | $28^{\circ} 50'$ E. | Bosphorus  | 600,000 | 1250 |

### (C.) THE THIRD RATE POWERS.

|                             |              |                       |        |           |            |                  |                     |                |         |      |
|-----------------------------|--------------|-----------------------|--------|-----------|------------|------------------|---------------------|----------------|---------|------|
| 1. Portugal                 | Kingdom      | West of Spain         | 74,606 | 4,350,000 | Lisbon     | $38^{\circ} 42'$ | $9^{\circ} 38'$ W.  | Tague          | 265,000 | 1000 |
| 2. Switzerland              | Republic     | East of France        | 15,281 | 2,700,000 | Berne      | $53^{\circ} 11'$ | $8^{\circ} 28'$ E.  | Anr.           | 36,000  | 470  |
| 3. Holland (inc. Luxemburg) | Kingdom      | North of Belgium      | 13,730 | 4,150,000 | Amsterdam  | $52^{\circ} 22'$ | $4^{\circ} 53'$ E.  | Amstel         | 302,000 | 100  |
| 4. Denmark                  | Kingdom      | North of Germany      | 19,353 | 1,580,000 | Copenhagen | $55^{\circ} 40'$ | $12^{\circ} 34'$ E. | Sound          | 250,000 | 567  |
| 5. Greece                   | Kingdom      | South of Turkey       | 19,353 | 1,580,000 | Athens     | $37^{\circ} 56'$ | $23^{\circ} 38'$ E. | *Gulf of Egina | 60,000  | 1740 |
| 6. Roumania                 | Principality | South-east of Austria | 49,262 | 5,376,000 | Bucharest  | $44^{\circ} 26'$ | $26^{\circ} 5'$ E.  | Dimbovitza     | 178,000 | 1300 |
| 7. Servia                   | Principality | West of Roumania      | 18,787 | 1,577,000 | Belgrade   | $44^{\circ} 48'$ | $20^{\circ} 28'$ E. | Danube         | 28,000  | 1100 |

Phenician



South, Cape  
Ural Moun-

ains to Cape  
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square miles,

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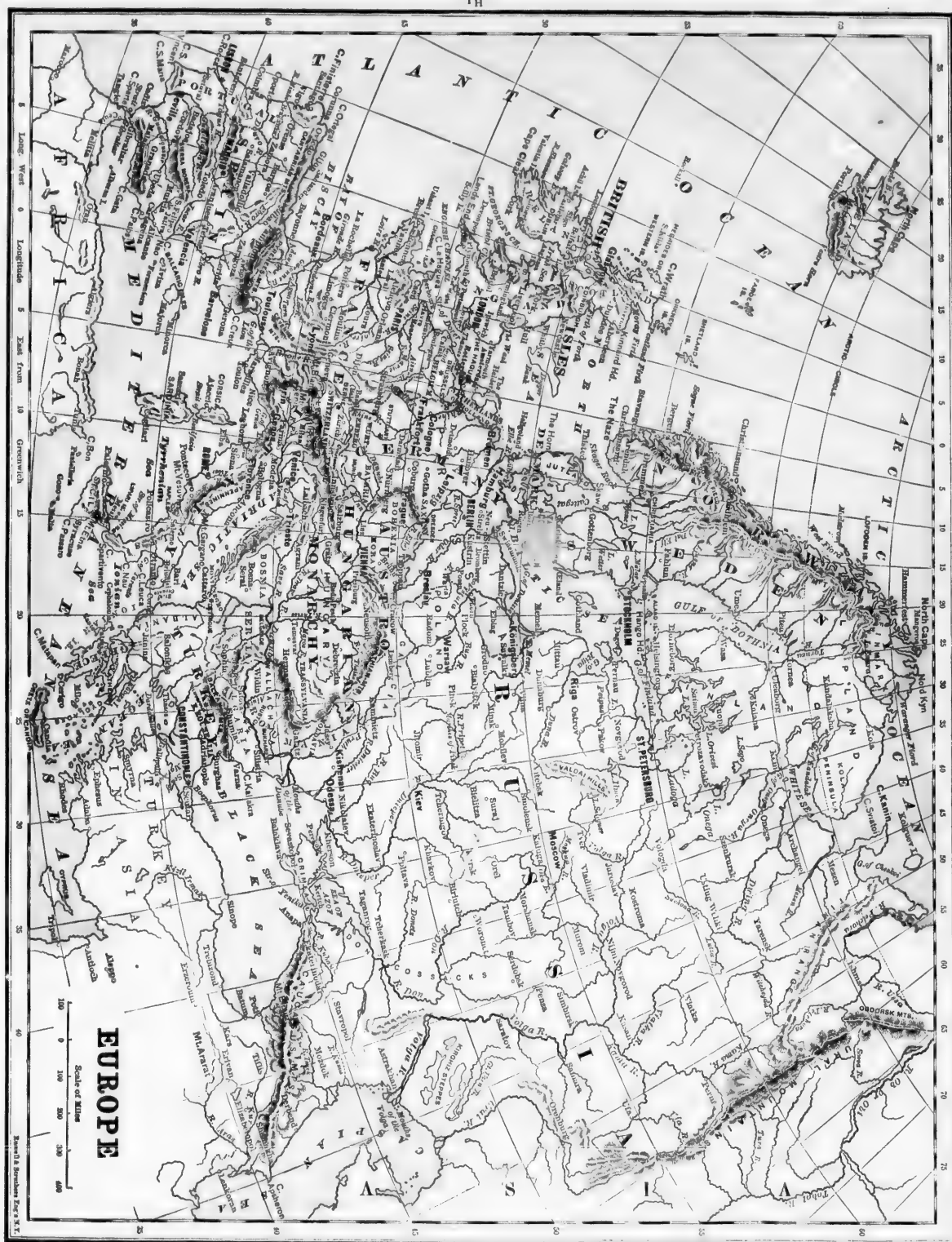
o. The most

three separate

| Distance<br>from London<br>in miles |       |
|-------------------------------------|-------|
| 0                                   | 0     |
| 100                                 | 215   |
| 200                                 | 568   |
| 300                                 | 770   |
| 400                                 | 1,000 |

|     |      |
|-----|------|
| 0   | 800  |
| 100 | 800  |
| 200 | 194  |
| 300 | 834  |
| 400 | 1560 |

|       |      |
|-------|------|
| 5,000 | 1000 |
| 1,000 | 470  |
| 2,000 | 100  |
| 3,000 | 567  |
| 4,000 | 1740 |
| 5,000 | 1300 |
| 6,000 | 1100 |





**8. Physical Coast Features.**—(1.) **Islands.**—(A.) **In the Arctic Ocean.**—*Nova Zembla*, or *New Land*, two large islands, and *Waigat*, north-east of Russia; *Spitzbergen*, or *Peaked Mountains*; *Bear Island*, between *Spitzbergen* and Norway; and *Jan Meyen*, between *Spitzbergen* and Iceland. The *Spitzbergen Archipelago* was discovered by Willoughby in 1553. It consists of an extensive island, upwards of 200 miles from north to south, three islands of considerable size, and many of smaller size. *Kolguev*, at the entrance to *Tcheskaia Gulf*; *Magerøe* group, on the north-west coast of *Finmark*; *Lofoden Isles*, extending 175 miles from north-east to south-west along the north-west coast of Norway. *Frans Joseph Land*, to the north-east of *Nova Zembla*, is the most northerly land known in the Eastern Hemisphere.

(B.) **In the Atlantic Ocean.**—*Færoe Isles*, 35 in number, between Iceland and Shetland; *British Isles*, between the Atlantic and the North Sea; *Norman Channel Isles*, off the north-west coast of France; *Azores*, a group of nine volcanic islands, about 800 miles west of Portugal.

(C.) **In the Baltic.**—*Danish Isles*, between Denmark and Sweden, chief, Zealand, Funen, and Laaland, with Bornholm, south of Sweden; *Swedish Isles*, south-east of Sweden, chief, Gothland and Oland; *Rügen*, north-west of Prussia; *Aland Isles*, an archipelago of 60 inhabited and 200 uninhabited islands, at the entrance of the Gulf of Bothnia; *Livonian Isles*, at the entrance of the Gulf of Riga; chief, Dago and Oesel; *Cronstadt*, at the eastern extremity of the Gulf of Finland.

(D.) **In the Mediterranean.**—*Balearic Isles*, east of Spain, Majorca, Minorca, Iviça, Formentera, and Cabrera; *Sardinia*, *Corsica*, and *Elba*, west of Italy; *Sicilian Isles*, south of Italy; chief, Sicily and the Lipari Isles; *Maltese Isles*, Malta, Gozo, and Comino, south of Sicily; *Ionian Isles*, twenty in number, west of Greece; chief, Corfu, Paxo, Santa Maura, Cephalonia, Ithaca, Zante, Cerigo; *Eubœa*, formerly called Negropont, the largest island in the Ægean Sea, east of Greece; the *Cyclades*, so called from their circling around Delos, fifty-three in number, east of the Morea; a portion of the *Sporades*, or scattered islands, north of Eubœa; *Crete*, or *Candia* (ancient *Creta* or *Idæa*), south-east of the Morea.

NOTE.—The area of the islands of Europe is about one-twentieth of the continental area.

(2.) **Peninsulas.**—*Kola Peninsula*, between the Arctic Ocean and the White Sea. The *Scandinavian Peninsula*, Norway and Sweden, between the Atlantic and the Baltic; area one-thirteenth of Europe. The *Danish Peninsula*, between the North Sea and the Baltic. *Brittany*, in the west of France, between the English Channel and the Bay of Biscay. The *Iberian Peninsula*, Spain and Portugal, between the Atlantic and the Mediterranean; area one-nineteenth of Europe. The *Italian Peninsula*, dividing in the south into *Calabria* and *Apulia*, between the Tyrrhenian and Adriatic Seas; area about one thirty-fourth of Europe. The *Hellenic Peninsula*, Turkey and Greece, with *Istria*, between the Adriatic and Ionian Seas on the west, and the Black Sea, Sea of Marmora, and the Ægean Sea on the east; area one-nineteenth of Europe. The *Crimea* (Chersonesus Taurica), between the Gulf of Odessa and the Sea of Azov.

NOTE.—The area of the peninsulas of Europe is about one-fourth of the whole area.

(3.) **Capes.**—(A.) **In the Arctic Ocean.**—*Cape Kavin*, at the entrance of the White Sea; *Cape Norddyn*, north of Norway, the extreme north point of continental Europe; *North Cape*, in *Magerøe Island*, north of Norway.

(B.) **In the Baltic.**—*The Naaze*, south of Norway; the *Skatte*, north of Denmark; *Hango Head*, at the entrance of the Gulf of Finland.

(C.) **In the Atlantic Ocean.**—*Dunnet Head* and *Cape Wrath*, north of Scotland; *Lizard Point* and *Land's End*, south-west of England; *Malin Head* in the north and *Cape Clear* in the south of Ireland; *St. David's Head*, south of Wales; *Cape La Hague* and *Raz Point* in the north-west of France; *Cape Ortegal* and *Cape Finisterre*, north-west of Spain; *Cape Roca*, in Portugal, the extreme western point of the continent; *Cape St. Vincent*, south-west of Portugal; *Point Albornes*, in the Azores, the most western point of insular Europe.

(D.) **In the Mediterranean.**—*Cape Tarifa*, in Spain, the extreme southern point of the continent; *Cape Gata*, south-east of Spain; *Cape Corso*, north of Corsica; *Cape Teulada*, south of Sardinia; *Cape Passaro*, south-east of Sicily; *Cape Spartivento*, south of Italy; *Cape di Leuca*, south-east of Italy; *Cape Matapan* and *Cape Malia*, south of Greece; *Cape Matala*, in Crete, the most southern point of insular Europe.

(E.) **In the Black Sea and the Caspian.**—*Cape Chersonese*, south-west of the Crimea; *Cape Apheron*, in the Caspian, at the eastern extremity of the Caucasus.

(4.) **Seas and Gulfs.**—(A.) **Connected with the Arctic Ocean.**—I. The *White Sea*, north of Russia. It penetrates into Russia 300 miles, with a breadth varying from 30 to 150 miles; area 40,000 square miles. Branches: *Gulf of Kandalak*, on the north-west; *Gulf of Onega*, on the south; and *Gulf of Archangel*, on the south-east.

II. *Gulf of Cheskoï*, north-east of Russia; *Waranger Fiord*, between Russia and Norway; and *West Fiord*, between Norway and Lofoden Isles.

(B.) **Connected with the Atlantic Ocean.**—I. *North Sea*, or *German Ocean* (Oceanus Germanicus), between the British Isles on the west and the Scandinavian and Danish Peninsulas on the east. The *Dogger Bank*, a vast sand bank, 300 miles from north to south, with a breadth of 60 miles, running through its centre, is a good fishing station. Mean depth 31 fathoms; length 700 miles; greatest breadth 420 miles; area 244,000 square miles. Branch: *The Zuider Zee* (South Sea), in the north of Holland, formerly a lake, into which the sea burst in 1282.

II. *Baltic Sea* (Mare Sarmaticum), the Mediterranean of the North, called by the Germans *Ostsee* (East Sea), is nearly enclosed by Sweden, Russia, and Germany. Its waters are slightly salt. The tide is hardly perceptible, rising only one foot at Copenhagen. Its depth ranges from 10 to 100 fathoms; length 900 miles; breadth 150 miles; area 133,000 square miles. Branches: *Gulf of Bothnia*, on the north, 400 miles long, with an average breadth of 100 miles, between Sweden and Finland; *Gulf of Finland*, on the north-east, 260 miles long, with a breadth varying from 25 to 90 miles, south of Finland; *Gulf of Riga*, between Livonia and Courland; *Gulf of Dantzic*, north of Prussia.

III. *Irish Sea*, between Great Britain and Ireland.

IV. *English Channel* (Oceanus Britannicus), called by the French *La Manche*, or *The Sleeve*, between England and France. The tide rises to the height of 50 feet. The depth of the channel varies from 25 to 63 fathoms; breadth at Dover 21 miles, and at Land's End 102 miles; area about 31,300 square miles.

V. *Bay of Biscay* (Mare Cantabricum), west of France, and north of Spain. Its depth varies from 20 to 200 fathoms. It is subject to violent tempests. Area about 77,000 square miles.

VI. The *Mediterranean Sea* (Mare Internum) is bounded on the north by Europe, on the east by Asia, and on the south by Africa. Length 2400 miles; area, with its branches, nearly 1,000,000 square miles. A line drawn from Cape Bon to Sicily divides it into two great basins, a western and an eastern.

Branches of the western basin or Lower Mediterranean: *Gulf of Lions* (Sinus Leonis), south of France; *Gulf of Genoa* (Sinus Ligusticus), south of Genoa; *Tyrrhenian Sea* (Mare Tyrrhenum), between Italy and Corsica, Sardinia, and Sicily.

Branches of the eastern basin or Upper Mediterranean: On the south, the *Gulf of Sidra* (Syrtis Major), and the *Gulf of Khabs* (Syrtis Minor), belonging to Africa; on the north-west, the *Ionian Sea* (Mare Ionicum), between Italy and Greece; and the *Adriatic Sea* (Mare Adriaticum), between the Italian and Hellenic peninsulas; on the north-east, the *Ægean Sea* (Mare Ægeum), between Greece and Asia Minor; *Sea of Marmora* (Propontis), between European and Asiatic Turkey; and the *Black Sea* (Pontus Euxinus), with its branches, *Gulf of Odessa*, *Gulf of Percep*, and *Sea of Azov* (Palus Maeotis), south of Russia. Greatest depth of the Black Sea 968 fathoms; length 690 miles; breadth 380 miles; area 172,500 square miles.

NOTE.—The greatest depth in the western basin is 1584 fathoms. Height of spring tide at Naples, one foot. The greatest depth of the eastern basin is 1131 fathoms. Height of spring tide at Venice, five feet.

(5.) **Straits.**—*The Skager-rack*, 193 miles long and 68 wide, between Denmark and Norway, and the *Cattegat*, 137 miles long and 65 wide, between Denmark and Sweden. These arms of the sea form an elbowed strait called *Codan* (Sinus Codanus), and have an area of about 20,000 square miles. The *Sound* between Sweden and Zealand, the *Great Belt* between Zealand and Funen, and the *Little Belt* between Funen and Schleswig connect the *Cattegat* with the Baltic. *North Channel* between Ireland and Scotland, and *St. George's Channel* between Ireland and Wales, connect the Irish Sea with the Atlantic. *Strait of Dover* (Fretum Gallicum), 21 miles wide, separates England from France, and connects the North Sea and English Channel. The *Strait of Gibraltar* (Fretum Herculeum), 12 miles broad at the narrowest part, between Spain and Africa, unites the Mediterranean and the Atlantic. *Strait of Bonifacio* between Corsica and Sardinia. *Strait of Messina* between Italy and Sicily. *Strait of Otranto*, between Italy and Turkey, unites the Adriatic and Ionian Seas. The *Dardanelles* (Hellespontus), from one to five miles wide, connects the Ægean and the Sea of Marmora. *Strait of Constantinople* (Thracian Bosphorus), from two-thirds to two and a half miles wide, connects the Sea of Marmora and the Black Sea. *Strait of Kertch*, *Yenikale*, or *Caffa* (Cimmerian Bosphorus), connects the Black Sea and the Sea of Azov.

(6.) **Isthmuses.**—*Isthmus of Finland*, connecting the Scandinavian Peninsula with the mainland of Europe. *Isthmus of Corinth*, 35 miles long and 4 miles wide, connecting the Morea with Northern Greece. *Isthmus of Percep*, 5 miles wide, connecting the Crimea with the mainland of Russia.

NOTE.—There are many isthmuses in Europe, but few of them have distinctive names.

## 9. Physical Features of the Interior.

(1.) **Mountains.**—The mean elevation of Europe is 671 feet. It has eight great mountain systems.

(A.) **The Scandinavian System** extends from North Cape to the Naaze. Length 1240 miles; breadth from 60 to 200 miles. It comprises three principal divisions.

(a.) *The Kiölen Range*, in the north, between Norway and Sweden. Highest summit, *Satelinna*, 6200 feet.

(b.) The *Doverfield* or *Dufurines*, in the middle, form a series of plateaus separated by deep valleys. Highest summit, *Stechatten*, 7630 feet.

(c.) The *Hardangerfeld* or *Langfeld*, in the south. Highest summit, *Skagstolind*, 8760 feet.

(B.) The *British System* extends throughout the British Isles. Length 800 miles. The principal ranges are:

(a.) The *Grampians* in Scotland. Highest summit, *Ben Nevis*, 4406 feet.

(b.) The *Cumbrian Mountains* in England. Highest summit, *Scafell*, 3300 feet.

(c.) The *Cambrian Mountains* in Wales. Highest summit, *Snowdon*, 3590 feet.

(d.) The *Hibernian Mountains* in Ireland. Highest summit, *Macgilguddy's Reeks*, 3494 feet.

(C.) The *Iberian System* occupies the Spanish Peninsula and that part of France which lies to the south of the River Garonne. It comprises five principal ranges:

(a.) The *Pyrenæes* extend from Cape Finisterre on the Atlantic to Cape Creux on the Mediterranean. Length 600 miles; average breadth 75 miles. They are divided into the *Atlantic Pyrenæes*, or *Cantabrian Mountains*, and the *Continental Pyrenæes*, or *Spanish and French Pyrenæes*. The *Cantabrian Mountains* extend from Cape Finisterre to Fontarabia on the Bay of Biscay, and the *Pyrenæes* proper thence to Cape Creux. Length of the *Pyrenæes* between France and Spain 270 miles. Highest summit, *Pic de Nethou* or *Maladetta*, 11,168 feet.

NOTE.—The *Pyrenæes* (proper) scattered over the surface of France would raise its mean level about 115 feet. The average height of the snow line is 8000 feet.

(b.) *Sierra Guadarrama* extends in a south-west course from near the sources of the Ebro to Cape Roca. The western part of the range is called *Sierra Estrella*. Highest summit 10,550 feet. It separates the basins of the Douro and Tagus.

(c.) *Sierra Toledo* extends westward from the great plateau to Cape Espichel. The western part of the range is called *Sierra Guadalupe*. Highest summit 5248 feet. It separates the basins of the Tagus and Guadiana.

(d.) *Sierra Morena* extends from Cape St. Martin on the Mediterranean to Cape St. Vincent on the Atlantic. The western part of the range is called *Sierra Monchique*. Highest summit, *Mount Aracena*, 5550 feet. It separates the basins of the Guadiana and Guadalquivir.

(e.) *Sierra Nevada* extends from Cape Tarifa to Cape Palos. It is the shortest but highest range in the peninsula. It runs between the Guadalquivir and the Mediterranean. Highest summit, *Cerro de Mulhagen*, 11,678 feet.

NOTE.—The height of the snow line is 11,000 feet.

(D.) The *Sardo-Corsican System* extends from Cape Corso in Corsica to Cape Teulada in Sardinia. Highest summit in Corsica, *Monte Rotondo*, 9068 feet; in Sardinia, *Monte Genargentu*, 7000 feet.

(E.) The *Alpine System* extends from the Mediterranean to the Great Central Plain. It comprises five principal divisions.

1. The *Alps* proper extend in a vast crescent from the Var to the Gulf of Quarnero. Length 600 miles. They are divided into the Western and the Eastern Alps.

The *Western Alps* consist of a single chain extending from Nice to Mont Blanc, called the *Maritime Alps* from the Mediterranean to Monte Viso, the *Cottian Alps* from Monte Viso to Mont Cenis, and the *Gratian Alps* from Mont Cenis to Mont Blanc. Highest summit, *Mont Pelvoux*, 15,440 feet.

The *Eastern Alps* consist of two series, a northern and a southern. The northern series includes the *Bernese Alps* on the right of the upper course of the Rhone, the *Alps of St. Gall*, and the *Noric Alps*, and extends nearly to Vienna. Highest summit, *Finsteraarhorn*, 14,100 feet. The southern series includes the *Pennine Alps* extending from Mont Blanc to Mont St. Gothard, and the *Helvetian*, *Rhaetian*, *Carnic*, and *Julian Alps* which terminate at the Gulf of Quarnero. Highest summit, *Mont Blanc*, 15,781 feet.

NOTE.—The Alps scattered over the surface of Europe would raise its present level about 21½ feet. The average height of the snow line is 8500 feet.

2. The *French system* comprises all the mountains west of the Rhine and the Rhone, and north of the Garonne. The principal ranges are:

(a.) The *Jura Mountains*, between France and Switzerland. They are composed of a series of parallel chains, separated by longitudinal valleys. Highest summit, *Mont Moleson*, 6588 feet.

(b.) The *Vosges Mountains*, west of the Rhine, extend in a single chain, 47 miles long and 10 miles wide, between Lorraine and Alsace, and separate the basin of the Rhine from that of the Moselle. Highest summit, *Ballon de Guebwiller*, 4694 feet.

(c.) The *Côte d'Or Mount*, north-west of the Jura Mountains, between the basins of the Seine and Loire, and that of the Saône. They are connected on the north with the Vosges, and on the south with the Cevennes. Their name refers either to the rich products of their vineyards, or to the golden color of the soil. Highest summit, *Le Tasselot*.

(d.) The *Cevennes Mountains*, in the south-east of France, extend generally from north-east to south-west, and separate the basin of the Rhone from that of the Loire. They are divided into northern and southern Cevennes at *Mont Lozerre*. Total length of the range about 300 miles. Highest summit, *Mont Mezon*, 5820 feet.

(e.) The *Auvergne Mountains*, west of the Cevennes, form the loftiest highlands in the interior of France, run from north to south, separating the basin of the Loire from that of the Garonne. They contain many extinct volcanoes, and abound in wild and picturesque scenery. Highest summit, *Puy de San*, 9187 feet.

3. The *Apennines* start from the extremity of the Maritime Alps, run from west to east, skirting the Gulf of Genoa, then turning to the south-east they traverse the entire peninsula of Italy. About the latitude of Naples, they divide into two branches, one of which runs to Cape Leuca, and the other extends to Cape Spartivento. The latter reappears in the island of Sicily and forms its Mountain System. The Apennines are divided into three parts: Northern Apennines from the Alps to the sources of the Ronco, Central Apennines thence to the sources of the Sangro, and Southern Apennines thence to Capes Leuca and Spartivento. The Northern Apennines enclose the south side of the basin of the Po. Length 50 miles; breadth from 25 to 30 miles. The Central and Southern Apennines form the water-parting between the Tyrrhenian Sea, and the Adriatic and Ionian Seas. Total length of the chain 800 miles; mean height 5000 feet. Highest summit in Italy, *Gran Sasso*, 9544 feet; in Sicily, *Mount Etna*, 10,874 feet. Height of snow line on Mount Etna, 9500 feet.

4. The *Hellenic System* embraces the mountains in the Hellenic peninsula, south of the Save and the Danube. The principal ranges are:

(a.) The *Dinaric Alps*, which run south-east from the Julian Alps, skirting the coast of the Adriatic and terminating at Mount Scardo. Highest summit, *Mount Dinara*, 7548 feet; length 370 miles. They are continued southward by (b.) The *Grammos* or *Pindus* chain, which forms the water-parting between the Adriatic and Ionian Seas on the west, and the Archipelago on the east, and terminates at Cape Matapan. Highest summit, *Mount Pindus*, 8950 feet; length about 450 miles.

NOTE.—Mount Olympus, 9749 feet, the highest point of the peninsula, lies east of the range.

(c.) The *Balkans* extend eastward from Mount Scardo to Cape Eminch on the Black Sea, forming the boundary between East Roumelia and Bulgaria. Highest summit, *Mount Scardo* or *Tchar Dag*, 9840 feet; length 400 miles.

5. The *Herzynio-Carpathian System* embraces all the mountains from the Rhine to the Dnieper between the valley of the Danube and the plain of Northern Germany.

(a.) The *Herzynian Mountains*, so called from the name of the immense forest, the *Hyrcinia Silva* of Tacitus, which once covered a large portion of the country, embrace a number of minor ranges in Southern Germany and Bohemia and Moravia. The best known ranges are the *Hartz*, the *Schwarzwald* or *Black Forest*, the *Bochmerwald* or *Bohemian Forest*, and the *Riesengebirge* or *Giant Mountains*. The highest summit is *Schneekoppe* (snow-cap), 5389 feet, the culminating point of the *Riesengebirge*.

(b.) The *Carpathians* starting from the Danube near Presburg run north-east under the name of the *Little Carpathians* between the March and Waag to the Sudectic Mountains. From Mount Wisoka begins the great chain of the Carpathians proper, which sweeps round in a large semi-circle until it reaches the Danube at the Iron Gate near Orsova. Its chief divisions are the *Western Carpathians* from Mount Wisoka to Mount Sloiczek; *Central Carpathians* from Mount Sloiczek to Mount Czorna; *Eastern Carpathians*, length 350 miles, from Mount Czorna to the Iron Gate. The Western and Central Carpathians separate Hungary from Galicia; and the Eastern Carpathians, Transylvania from Moldavia and Wallachia. Total length of the Carpathians 800 miles; average breadth 100 miles. Highest summit, *Mount Butschetje*, south of Kronstadt, 9528 feet.

(F.) The *Sarmatian System*, named from Sarmatia, the ancient name for Poland, contains no real mountains. The *Vuldai Hills*, 1100 feet high, form the water-parting from which flow the Duna to the Baltic, the Volkon to the Black Sea, the Dnieper to the Black Sea, and the Volga to the Caspian.

(G.) The *Uralian System*, between Europe and Asia. The principal chain, the *Ural Mountains*, extends from the Arctic Ocean to Orenberg on the Ural River. Length 1200 miles; average height 3000 feet; highest summit, *Konjakowski*, 5397 feet.

(H.) The *Caucasian System* extends between the Black Sea and the Caspian. Length 750 miles; highest summit, *Mount Elbrus*, 18,526 feet, the highest point in Europe.

2. *Plateaus*.—(a.) The *Central Plateau of Spain* occupies the greater part of the Iberian peninsula. It is bounded on the north by the Cantabrian Mountains; on the south by the Sierra Morena; on the east by a broken ridge which begins near the sources of the Ebro, and runs south-east under the name of the Iberian Mountains; and on the west it slopes to the Atlantic. The Sierra Guadarrama, and the Sierra Toledo extend across the plateau. Area 100,000 square miles; height 2250 feet.

(b.) The *Plateau of France*, on the north side of the Alps, extends from Lake Geneva to the mouth of the Inn. It is divided into two parts by the western course of the Rhine and Lake Constance, the south-western forming the plateau of northern Switzerland, and the north-eastern the plateau of southern Bavaria. Mean height 1660 feet.

(c.) The *Plateau of Auvergne*, in France, has a mean height of 1087 feet. It was once the theatre of violent volcanic action, and is studded with extinct volcanic cones; the principal of which are *Parion*, *Cantal*, *Mont-d'Or*, and *Puy-de-Dome*.

(d.) The *Plateau of Bohemia* is an enclosed table land, nearly surrounded by the *Bochmerwald*, on the south-west; the *Erzgebirge*, on the north-west; the *Riesengebirge*, on the north-east; and the *Marchwald*, on the south-east. It is drained by the Elbe and its tributaries, the Moldau and the Eger. Height 960 feet.

(c.) The *Plateau of Transylvania*, east of Hungary, is embosomed by the circuit of the Carpathians. It is overspread by offsets of that range, and plains are rare.

(3.) **Plains.**—(A.) The *Great Plain* extends from the mouths of the Rhine on the west, to the Ural Mountains and Caspian Sea on the east, and from the Arctic Ocean on the north, to the Black Sea on the south. Area 2,500,000 square miles. It is generally divided into the Germanic Plain in the west, and the Sarmatian Plain in the east.

(a.) The *Germanic Plain* is bounded on the west by the Rhine; on the south by the Harz, the Erzgebirge, and the Riesen-gebirge; on the east by the Vistula; and on the north by the Baltic and the North Sea. It is watered by the Rhine, Ems, Weser, Elbe, Oder, and Vistula. Mean height 350 feet.

(b.) The *Sarmatian Plain* is bounded on the west by the Vistula, the Baltic, the Gulf of Bothnia, and Scandinavia; on the north by the Arctic Ocean and the White Sea; on the east by the Ural Mountains, the Kirghis Steppes, and the Caspian; and on the south by the Caucasus, the Black Sea, and the Carpathians. Its area is equal to the half of Europe. It is crossed by two long, low plateaus. The northern called the Uralo-Baltic Table Land, extends north-east from the Lower Vistula, and forms the Valdai Hills, from which it narrows towards the Urals. The southern, called the Uralo-Carpathian Table Land, extends from the Southern Urals to the Carpathians. That part of the plain, south of the southern plateau, lying along the Caspian Sea and the Volga, is called the *Steppe of Astrakhan*.

(B.) **Secondary Plains.**—(a.) The *Plain of France* extends from the south-west of France to the Germanic Plain. It is watered by the Garonne, Loire, Seine, and Scheldt. Its height does not exceed 450 feet. The region of the *Landes* extends from the mouth of the Garonne to that of the Adour, a distance of 200 miles, and runs 70 miles inland. The district is a wilderness of sand, black pine woods, and large plains of furze and heather.

(b.) The *Plain of Hungary* extends from the Little Carpathians to the Mountains of Transylvania, and from the Carpathians on the north, to the terraces of the Balkans on the south. It is drained by the middle course of the Danube and its tributary the Theiss. Along the rivers there are extensive swamps and marshes covering fully 10,000 square miles. In various parts of it there are tracts of deep sand called *Pushtas*. Length 300 miles; height 400 feet.

(c.) The *Plain of Wallachia and Bulgaria* on the Lower Danube, between the eastern Carpathians and the Balkans.

(d.) The *Plain of Lombardy*, in the north of Italy, is bounded on the north and west by the Alps, on the south by the Apennines, and on the east by the Adriatic. It is drained by the Po and the Adige. It is celebrated for its fertility. Length 300 miles; area 38,160 square miles.

(e.) The *Plain of Andalusia*, in the south of Spain, between the Sierra Morena on the north, and the Sierra Nevada on the south. It is drained by the Guadalquivir.

(f.) The *Plain of Scandinavia* on the east side of the peninsula. It is broadest at the south, and tapers towards the head of the Gulf of Bothnia, where it unites with the rock and lake plain of Finland.

(4.) **Water-parting.**—The Great Water-parting begins at Cape Tarifa in the Strait of Gibraltar, and runs in a tortuous north-eastern direction to the northern end of the Ural Mountains, dividing the continent into two great water-sheds, the one sloping north-west to the Arctic and Atlantic with their branches, and the other south-east to the Mediterranean with its branches, and the Caspian.

(5.) **The Rivers** may be arranged as follows:

I. The Arctic System; II. The Atlantic System; III. The Continental System.

I. **The Arctic System.**—Drainage area 570,000 square miles.

(1.) The *Petchora* rises in the Ural Mountains, and flows north-west through Russia into the Arctic Ocean. Length 850 miles; area of basin 114,400 square miles.

(2.) The *Mesen* flows north-west through Russia into the White Sea. Length 350 miles; area of basin 30,100 square miles.

(3.) The *Dvina* is formed of two branches, the *Suchona* and the *Witchgda*, flows north-west through Russia, and ends near the town of Archangel, in the White Sea. It is connected by canals with the Neva and Volga. Length 700 miles; area of basin 134,400 square miles.

(4.) The *Onega* rises south-east of Olonetz, and flows north-west through Russia into the White Sea. Length 350 miles; area of basin 21,000 square miles.

II. **The Atlantic System** comprises five basins, viz.: (A.) The Baltic Basin; (B.) The North Sea Basin; (C.) The Atlantic Basin proper; (D.) The Mediterranean Basin; (E.) The Black Sea Basin.

(A.) **The Baltic Basin.**—Drainage area 717,000 square miles.

(1.) The *Tornea* from the Kiölen Mountains flows south, forming the boundary between Sweden and Russia, and ends at Tornea, at the head of the Gulf of Bothnia.

(2.) The *Kalix*, *Lulea*, *Pitea*, and *Umea* flow south-east through Sweden and end in the towns of the same names, on the west coast of the Gulf of Bothnia. The *Dahl* forms a long series of lakes, and ends in a large gulf connected with the Gulf of Bothnia.

(3.) The *Neva* with Lakes Ladoga and Onega, 420 miles; area of basin 99,700 square miles. The *Neva* is 46 miles long. It empties into the Gulf of Finland by three mouths. Its basin is connected with that of the Volga by several canals.

(4.) The *Narva* and Lake Peipus, length 290 miles; area of basin 19,600 square miles. It flows north into the Gulf of Finland.

(5.) The *Duna* issues from the Valdai lakes, flows first south, then north-west, and enters the Gulf of Riga, below the town of Riga. Length 520 miles; area of basin 34,700 square miles.

(6.) The *Niemen or Memel* from Minsk, runs north-west, passes Tilsit, and enters the Baltic by the Curische Haff, the entrance to which is defended by Memel. Length 470 miles; area of basin 35,700 square miles.

(7.) **The Vistula** (German *Weichsel*) rises in the Carpathians of Austrian Silesia, runs first north-east, and then north-west through Poland, enters Prussia at Thorn, flows northward and divides into two large arms, that on the right, called *Nogat*, ends in the Frische Haff, that on the left retains the name of *Vistula*, and ends in the Gulf of Dantzic. Its windings are said to equal two-thirds of its direct course. It receives its chief tributaries, the *San* and the *Bug*, on the right bank. Length 520 miles; area of basin 72,300 square miles.

(8.) The *Oder* rises in the Sudetic Mountains, flows first north-west and then north through Prussia. After passing Garz, it divides into two large arms; that on the right is called the *Regilla*, that on the left retains the name of *Oder*. These arms unite below Stettin, north of which the river expands into the Stettiner Haff, and enters the Baltic by three mouths. Its chief tributary is the *Wartha*, which joins it on the right bank at Kustrin. Length 480 miles; area of basin 45,200 square miles.

(B.) **The North Sea Basin.**

(1.) The *Gotha*, the largest river in Sweden, issues from Lake Wener, and enters the Cattegat at Gottenburg. Length, including Lake Wener, 400 miles; area of basin 17,000 square miles.

(2.) The *Glommen*, the largest river in the Scandinavian peninsula, rises in the Langfeld Mountains, and enters the Skagerrack at Fredericksstad. Length 340 miles; area of basin 16,000 square miles.

(3.) The *Elbe* (Albis) rises in the Riesen-gebirge, runs first south, and then north-west through Bohemia, from which it emerges between the Erz-gebirge and the Riesen-gebirge into Germany. It then flows north-west and enters the North Sea at Cuxhaven, 60 miles below Hamburg. It is nine miles wide at its mouth. It is connected by canals with the Oder and Weser. The tide ascends it for 25 miles. Length 550 miles; area of basin 55,000 square miles.

The chief tributaries on the left bank are: the *Moldau* and the *Eger* in Bohemia, and *Mulde* and *Saale* in Germany; and on the right, the *Havel* and the *Elde*.

(4.) The *Weser* rises in the Frankenwald under the name of the *Werra*, and flows north-west through Germany into the North Sea. It receives on the right bank the *Nesse* and the *Alte*; and on the left the *Fulda* and the *Diemel*. Length 330 miles; area of basin 17,700 square miles.

(5.) **The Rhine** (Rhenus), German *Rhein*, is formed by the union of the *Hinter-Rhein* (posterior Rhine) and the *Vorder-Rhein* (anterior Rhine). The latter rises on the east side of Mount St. Gothard in Switzerland, at a height of 9000 feet. In its upper course, which extends to Basel or Bâle, it flows first north-east, and then north to the Lake of Constance or Bodensee, on leaving which it runs westward to Basel. In its middle course, it flows north through Germany to Schenck. In its lower course, it flows west through Holland, where it divides into three branches, the *Waal*, the *Lech*, and the *Old Rhine*, and enters the North Sea. It forms the largest European delta. The Old Rhine ends at Leyden. It is navigable by steamers to Basel. Length 760 miles; area of basin 75,000 miles.

The chief tributaries on the left bank are: (a.) *The Aar* (Ararius) from Switzerland, which joins it at Waldshut; (b.) *The Moselle* (Mosella) from France, which joins it at Coblenz; and (c.) *The Meuse* (Mosa) from France, which flows through Belgium and enters Holland at Maestricht under the name of *Maastricht*. At Dordrecht it divides into two branches, the northern joining the Lech branch of the Rhine above Rotterdam, and the southern flowing to the sea.

The chief tributaries on the right bank are: the *Neckar* (Nicer) from the Black Forest, which joins it at Mannheim; the *Main* (Moenus) from the Fichtel-gebirge, which joins it at Mentz; and the *Lippe*, from the Egge, which joins it at Wesel.

(6.) The *Thames* rises in the Cotswold Hills, in Gloucestershire, flows eastward, and falls into the North Sea, about 50 miles below London Bridge. It is called the *Tiss* from its rise to the city of Oxford. The tide ascends it for 70 miles. Length about 160 miles; area of basin 5162 square miles.

(7.) The *Humber* with its tributaries, of which the Trent and the Ouse are the principal, drains several of the north-eastern counties of England, and empties into the German Ocean.

(C.) **The Atlantic proper Basin.**—Drainage area with North Sea Basin 770,000 square miles.

(1.) The *SVERN* rises in Wales, and flows by Shrewsbury, Worcester, and Gloucester, into the Bristol Channel. Length 210 miles; area of basin 8000 square miles.

(2.) The *Mersey* rises in the borders of Derbyshire, and flowing almost due west, empties into the Irish Sea. Liverpool is situated on the north-east bank and Birkenhead on the opposite bank, a few miles from its mouth.

(3.) The *Seine* (Sequana) rises in the Côte d'Or Mountains, flows north-west through France, and enters the English Channel between Le Havre and Honfleur. Length 410 miles; area of basin 28,500 square miles.

The chief tributaries on the left bank are: the *Yonne*, the *Loing*, and the *Eure*; on the right, the *Aube*, the *Marne* (Matrona), and the *Oise*.

(4.) The *Loire* (Ligeris) rises in the Cevennes Mountains, flows north-west through France to Orleans, thence south-west and west to the Bay of Biscay, ending between Point Minden and St. Nazaire, 30 miles below Nantes. Length 520 miles; area of basin 44,500 square miles.

The chief tributaries on the left bank are the *Allier* (Elaver), the *Cher*, and the *Vienne*; on the right, the *Mayenne*.

(5.) The *Garonne* (Garumna) rises in the Pyrenees, in the valley of Aran, which belongs to Spain, flows north-east through France to Toulouse, thence north-west to the Bay of Biscay. Twelve miles below Bordeaux it is joined by the *Dordogne*, and the united rivers take the name of the *Gironde*. Length 330 miles; area of basin 31,000 square miles.

Its chief tributaries are on the right bank, viz.: The *Avirge* (Auriga), the *Tarna* (Tarnis), the *Lot* (Oltis), and the *Dordogne* (Durannius).

(6.) The *Douro* (Durius) rises on the south side of the Sierra de Urbion, flows west through Spain between the Sierra Guadarama and the Cantabrian Mountains to Miranda, thence south for 50 miles between Spain and Portugal, then west through Portugal, and enters the Atlantic at Oporto. It is navigable only for 75 miles. Length 410 miles; area of basin 34,200 square miles.

The chief tributaries on the left bank are the *Frema*, the *Tormes*, the *Aguada*, and the *Cas*; on the right, the *Pisuerga*, the *Esba*, the *Tua*, and the *Tamega*.

(7.) The *Tagus* (Span. Tago; Port. Tejo) rises in the Sierra Molina, flows west through Spain and Portugal, between the Sierra Guadarama and Sierra Toledo, expands into a great estuary 30 miles above Lisbon, below which it becomes narrower, and finally flows into the Atlantic between Capes Roca and Espichel. Length 500 miles; area of basin 33,000 square miles.

Its chief tributaries are on the right bank, viz.: The *Xarama*, the *Aberche*, the *Alagon*, and the *Zesere*.

(8.) The *Guadiana* (Anas) rises on the north side of the Sierra de Alcares, and after running for ten miles disappears in a marshy country. Twelve miles further on it bursts up in springs called *Ojos de Guadiana*, rises in the mountains of Murcia, flows south-west through the Plain of Andalusia, between the Sierra Morena and the Sierra Nevada, and enters the Atlantic at San Lucar. A marshland, called the *Marisma*, five miles wide, extends along the right bank of the river for 37 miles from its mouth. Opposite the Marisma is a sandy waste with an area of 95 square miles. Length 500 miles; area of basin 19,500 square miles.

NOTE.—The syllable *Gandi* is a corruption of the Arabic *Wady*, a river, or river-valley; Guadiana, or *Wadi-Ana*, the River Ana; Guadalquivir, or *Wadalkebir*, the great river.

(D.) The *Mediterranean Basin*.—European drainage area 363,000 square miles.

(1.) The *Ebro* (Iberus) rises in the Cantabrian Mountains (Sierra Reynosa), and flows south-east through Spain and falls into the Mediterranean below Amposta. Length, 380 miles; area of basin 32,900 square miles.

The chief tributaries on the left bank are the *Aragon*, the *Galligo*, and the *Segre* (Sicoris) from the Pyrenees; on the right, the *Jalon* and the *Guadalupe*.

(2.) The *Rhone* (Rhodanus) rises in Mount St. Gothard, at an elevation of 5700 feet. It runs at first south-west through the Swiss Canton called Valais, a wild and picturesque valley 89 miles long, to Martigny, whence it turns north-west, and, after a course of 100 miles, enters the Lake of Geneva or Lemman. It issues from the lake at Geneva, and entering France, flows south-west to Seyssel, where it becomes navigable. It then runs westward to Lyons, whence it flows south to the Mediterranean which it enters by four mouths. Its delta begins at Arles. The Rhone is the most impetuous river in Europe. It is connected with the Rhine by a canal. Length 420 miles; area of basin 37,900 square miles.

The chief tributaries on the right bank are: the *Saone* (Ara), from the plateau of Langres, which joins it at Lyons; on the left, the *Isere* (Isara) and the *Durance* (Durantia).

(3.) The *Po* (Padus) rises in Monte Viso, at a height of 6500 feet, flows in a north-east curve to Turin, thence east through the Plain of Lombardy to the Adriatic, which it enters by several mouths. At Ferrara, which is two miles from the Po, the surface of the river is higher than the roofs of the houses. Adria, a seaport in the time of Augustus, is now 20 miles inland. The river gains on the sea at the rate of about 230 feet per annum. Length 360 miles; area of basin 34,600 square miles.

The chief tributaries on the right bank are: the *Tanaro* (Tanarus); on the left, the *Dora Baltea*, the *Seia* (Sessites), the *Ticino* (Ticinus), the *Adda* (Addua), the *Oglio*, and the *Mincio* (Mincius).

(4.) The *Maritima* rises in Mount Haemus, flows south through Roumelia, and enters the Aegean Sea, west of the Gulf of Saros. Length 260 miles; area of basin 18,200 square miles.

(E.) The *Black Sea Basin*.—Drainage area 825,000 square miles.

(1.) The *Danube* (Ister), Germ. *Donau*, rises in the Black Forest at a height of 5550 feet, and after a course of 1700 miles, discharges its waters into the Black Sea. Area of basin 306,100 square miles. Its course is divided into four parts.

(a.) The first basin extends from its source to Passau. It flows first north-east to Ratisbon, thence south-east to Passau. In this part of its course it receives on the left bank the *Altmühl* (connected by Ludwig's canal with the Rhine through the Main), the *Naab*, and the *Regen*; and on the right, the *Iller* (Ilargus), near Ulm, where it is 300 feet wide and 6 feet deep and becomes navigable, the *Lech* (Licus), the *Isar* (Isara), at Deckendorf, and the *Inn* (Enus), at Passau.

NOTE.—At Passau, the Danube is 300 feet above the sea, 495 feet wide, and 16 feet deep.

(b.) The second basin extends from Passau to the defile between Gran and Waitzen. It has an eastward course and abounds with islands. From Passau to Vienna it runs through a hilly country, after which it enters a plain 74 miles in width. A northern branch, called *Neuhäusler Donau*, extends from Presburg to Komorn, and forms the Great Schutt Island, 50 miles long and 15 miles wide. A southern branch, called *Weissburt Donau*, forms the Little Schutt Island, and rejoins the main stream at Raab.

The chief tributaries of the second basin on the left bank are: the *March* or *Morava*, which rises in the Schneeberg and ends at Theben; the *Wang*, from the Tatra Mountains, which joins the Neuhäusler branch; and the *Gran*, which rises in the Carpathians and ends at Gran; on the right, the *Raab*, from the Styrian Alps, joins it below Raab.

(c.) The third basin extends from the defile between Gran and Waitzen to Orsova. This basin is an immense plain, not more than 400 feet above sea level. On issuing from the defile, it flows due south to Vukovar, and thence eastward to Orsova. Below Pesth, it divides into two branches, which enclose the island of Czepeel. From Belgrade to Orsova, it is the boundary between Hungary and Servia.

The chief tributaries of the third basin on the left bank are: the *Theiss* (Tibiscus), which rises in Mount Galatz, flows west to Tokay, thence south to the Danube, which, after a course of 700 miles, it joins between Peterwarden and Belgrade; on the right, the *Drave* or *Drava* (Dravus), which rises in the Drei Herrn Spitz, Three Lords' Peak, runs south-east, and after a course of 300 miles, joins the Danube 14 miles east of Eszek; the *Sava* or *San* (Sarus), which rises in Mount Tergion in the Corinthian Alps, flows south-east, and after a course of 420 miles joins the Danube at Belgrade; and the *Morava* (Margis), formed by the junction of the *Eastern* and *West Morava* 33 miles west of Nissa, which flows north through the province of Servia, and joins the Danube below Semendria.

(d.) The fourth basin extends from Orsova to the Black Sea. It is low and marshy near the river, but dry and hilly towards the enclosing heights. Below Orsova, the Danube forces a passage between the protruding ridges of the Carpathians and Balkans by the pass called the *Iron Gate*. From the Iron Gate the river flows south-east to beyond Widdin, thence eastward to Rassova, beyond which it runs northward to Galatz, whence its course is eastward to the sea. From Orsova to Galatz, it separates Servia and Bulgaria from Wallachia. From Galatz, its mouths (the chief of which are the *Kilia*, the *Sulina*, and the *Edrillits*) belong to Moldavia.

The chief tributaries of the fourth basin on the left bank are: the *Sereth*, which rises in the Carpathians, flows southward, and joins the Danube at Galatz; and the *Pruth*, which rises in Mount Czorna, flows southward between Russia and Moldavia, and ends at Rani; on the right, the *Isker*.

(2.) The *Dneister* (Tyras) rises in the Carpathians, enters Russia at Chotin, flows south-east, and enters the Black Sea at Akerman. Length 660 miles; area of basin 27,300 square miles.

(3.) The *Onieper* (Borysthenes) rises in the plateau of the Valdai, and after a winding course southward falls into the Black Sea below Kherson. Length 1050 miles; area of basin 195,500 square miles.

Its chief tributaries on the right bank are: the *Beresina*, the *Pripjets*, and the *Bug*; and on the left, the *Dniester*.

(4.) The *Don* (Tanais) rises in Lake Ivanov, flows first south-east, and then south-west, and enters the Sea of Azov between Azov and Tanagerog.

Its chief tributary is the *Donets* on the right bank, which traverses the Ukraine. Length 1000 miles; area of basin 176,500 square miles.

### III. The Continental System.

The *Caspian Sea Basin*.—Drainage area 689,000 square miles.

(1.) The *Volga* (Rha), the largest river in Europe, rises in Lake Seliger, in the Valdai Hills, at a height of 800 feet above the Baltic, flows north-east to the confluence of the *Mologa*, south-east to the confluence of the *Kama*, south-west to the confluence of the *Sarpa*, and then south-east to the Caspian Sea, which it enters at Astrakhan, by seventy mouths occupying a space of 12 miles. Navigation by steamers begins at Tver, 90 miles from its source. It is connected by canals with the Baltic. At Tver its breadth is 700 feet, and at Kasan 1000 yards. Length 2300 miles; area of basin 527,500 square miles.

Its chief tributaries on the right bank are: the *Oka*, which joins it at Nijni Novgorod, and the *Souira*; on the left, the *Mologa*, the *Chekana*, and the *Kama*, its most important tributary, which rises in the Urals, runs south parallel to the chain, and ends below Kasan.

(2.) The *Ural*, which separates Europe from Asia, rises on the east side of the Ural Mountains, flows south to Orsk, west to Uralsk, and south to the Caspian, which it enters at Gourief. Length 900 miles; area of basin 85,000 square miles.

(6.) *Lakes*.—The lakes of Europe may be arranged in seven divisions:

(A.) *Lakes of the Arctic Watershed*.—Lake *Kubinskoe*, drained by the Suchona, a tributary of the Dwina; Lake *Latcha*, drained by the Onega; Lake *Wygo* and *Sego*, drained by the Wygo; and Lake *Kovdo*, *Piavo*, and *Imandra*, all drained into the White Sea; Lake *Enara*, in Lapland, drained into Waranger Fiord by the Patajoki or Pasvig; area 1200 square miles.

(B.) *Lakes of the Baltic Watershed*.—In Russia.—Lake *Ulea*, in the centre of Finland, drained by the Ulea into the Gulf of Bothnia; Lake *Pajani*, in the south of Finland, drained by the Borge into the Gulf of Finland; Lake *Saima*, drained into Lake Ladoga by the Woxa; area 2000 square miles; height above the sea 247 feet. Lake *Biel* communicates with Lake Onega; length 25 miles; area 414 square miles. Lake *Onega* receives all the streams that rise in the Olonetz hills. It is connected with the White Sea by Lakes Sego and Wigo; with the Baltic by the Svir, Lake Ladoga, and the Neva; and with the Caspian Sea by



**(F.) The Black Sea Watershed.**—In Austria.—*Neusiedler See*, formerly a salt lake, but now dried up, was situated in the west of Hungary, drained by the Raabnitz, a tributary of the Danube; height above the sea 367 feet; area 160 square miles. *Balaton or Platten See* (Salt), in the west of Hungary, drained by the Sio, an affluent of the Danube; height above the sea 436 feet; area 380 square miles.

NOTE.—There are about 20,000 lakes in Austria.

In Sweden.—*Lake Tornea*, in the north-west, drained by the Tornea: *Stor-Lulea*, i. the north, drained by the Lulea; *Lake Siljan*, in the centre, drained by the Dahl; *Lake Maclar*, in the east, connected by a strait with the Baltic. It extends from Stockholm, 75 miles inland, and is said to contain 1300 islands. Height above the sea 4 feet; area 472 square miles. *Lake Hiemlar*, connected with Lake Maclar by the Arboga Canal; length 40 miles; breadth 15 miles. *Lake Wetter*, in the south, discharges its waters into the Baltic by the Motala; height above the sea 290 feet; length 80 miles; average breadth 10 miles; area 710 square miles.

NOTE.—About one-twelfth of the surface of Sweden is covered with lakes.

**(C.) Lakes of the North Sea Watershed.**—In Scandinavia.—*Lake Wener*, one of the largest lakes in Europe, in the south-west of Sweden, discharges its waters by the Gotha into the Cattegat. It drains *Lake Femund*, in the east of Norway, by the River Klar, and is also the receptacle of about 30 streams. It is connected with Lake Wetter by the Gotha Canal. Height above the sea 114 feet; length 90 miles; greatest breadth 56 miles; area 2020 square miles. *Lake Miosen*, the largest lake in Norway, in the south-east, drained by the Glommen into the Skagerack; length 63 miles; breadth 12 miles.

NOTE.—There are about 30,000 lakes in Norway.

In Switzerland.—*Lake Constance* or *Boden See*, between Switzerland and Germany, drained by the Rhine; height above the sea 1200 feet; depth 564 feet; length 44 miles; breadth 8 miles; area 183 square miles. *Lake of Zurich*, on the Limmat, a tributary of the Aar; height above the sea 1341 feet; length 25 miles; area 34 square miles. *Lake of Lucerne*, drained by the Reuss, a tributary of the Aar; height above the sea 1433 feet; length 24 miles; area 40 square miles. *Lake of Neuchatel*, drained by the Thielle, a tributary of the Aar; height above the sea 1426 feet; length 25 miles; area 91 square miles.

In Scotland.—*Loch Ness*, drained by the Ness into Moray Frith; height above the sea 53 feet; depth 800 feet; length 22 miles.

**(D.) The Atlantic Watershed Proper.**—In the British Isles.—*Loch Lomond*, the largest lake in Scotland, drained by the Leven, a tributary of the Clyde; height above the sea 23 feet; length 24 miles; breadth 8 miles; area 45 square miles. *Lake Windermere*, the largest lake in England, drained by the Leven into the Irish Sea; height above the sea 134 feet; depth 240 feet; length 10 miles; area 5 square miles. *Lough Neagh*, in the north-east of Ireland, the largest lake in the British Isles, drained by the Bann into the Atlantic Ocean; height above the sea 48 feet; length 17 miles; breadth 10 miles; area 154 square miles.

In France.—*Grand Lieu*, the largest lake in France, drained by the Loire into the Bay of Biscay; area 20 square miles.

**(E.) The Mediterranean Watershed.**—In Switzerland.—*Lake Geneva* or *Leman Lake*, between Switzerland and Savoy, drained by the Rhone; height above the sea 1230 feet; depth 985 feet; length 45 miles; breadth 9 miles; area 221 square miles.

In Italy, on tributaries of the Po.—*Lago Maggiore*, drained by the Ticino; height above the sea 687 feet; length 40 miles; breadth 8 miles; area 80 square miles. *Lago di Como*, drained by the Adda; height above the sea 697 feet; area 61 square miles. *Lago di Garda*, drained by the Mincio; height above the sea 227 feet; length 32 miles; greatest breadth 13 miles; area 160 square miles.

**(F.) The Black Sea Watershed.**—In Austria.—*Neusiedler See*, formerly a salt lake, but now dried up, was situated in the west of Hungary, drained by the Raabnitz, a tributary of the Danube; height above the sea 367 feet; area 160 square miles. *Balaton or Platten See* (Salt), in the west of Hungary, drained by the Sio, an affluent of the Danube; height above the sea 436 feet; area 380 square miles.

NOTE.—There are about 20,000 lakes in Austria.

**(G.) The Caspian Sea Watershed.**—The *Caspian Sea* is 870 miles long; greatest breadth 401 miles; average breadth 210 miles; area 178,866 square miles. It is 83 feet 6 inches below the level of the Black Sea; depth in the northern part less than 60 feet, in the south nearly 3000 feet. *Lake Seliger*, near the Valdai Hills, the source of the Volga. *Lake Elton*, in the steppe east of the Volga, one of the saltiest lakes in the world, contains 20 per cent. of saline matters, and furnishes two-thirds of the salt consumed in Russia; area 130 square miles.

**10. Animals.**—All the useful animals are found in Europe, such as the horse, ass, mule, ox, domesticated buffalo, sheep, goat, and reindeer. Of wild animals there are the bear, deer, urus or wild ox, chamois, ibex, wild boar, wolf, lynx, wild cat, fox, jackal, otter, badger, weasel, and hedgehog. There are also the beaver, squirrel, marmot, rat, mouse, mole, hare, and rabbit. Monkeys are found wild on the rock of Gibraltar. Four hundred species of birds are permanent residents. Singing birds are numerous, especially the nightingale (the best songster in the world), the thrush, lark, blackbird, linnet, and goldfinch. Of other birds there are the eagle, vulture, hawk, falcon, and owl; also the swan, goose, duck, bittern, stork, heron, snipe, pheasant, peacock, pelican, cormorant, and turkey.

**11. Vegetation.**—In the south of Europe are produced olives, oranges, lemons, citrons, figs, pomegranates, vines, and rice. In Central Europe, tobacco is largely grown. The principal fruits are apples, pears, peaches, cherries, plums, and walnuts. The trees are the oak, beech, fir, chestnut, and pine. All kinds of grain grow south of Finland and the middle of Norway and Sweden.

**12. Minerals.**—Gold is found chiefly in the Ural and Carpathian Mountains. Silver in Austria, Sweden, and the British Isles. Iron in Great Britain, Sweden, Norway, Russia, Germany, Austria, Belgium, and France. Copper in Sweden and Norway, Germany, Austria, and Great Britain. Lead in Austria, Spain, British Isles, and France. Tin in England, Germany, Austria, and Spain. Zinc in Great Britain, Belgium, and Germany. Quicksilver in Spain and Hungary. Platinum in the Ural Mountains. Coal in Great Britain, Belgium, France, and Germany. Salt in England, Russia, Germany, Austria, and France. Sulphur in Italy. Amber on the south shores of the Baltic. Petroleum in Wales, Italy, and Turkey. Marble in Italy and Greece.

**13. Climate.**—The northern portions of the Great Plain are cold; but as three-fourths of the continent lie within the temperate zone, the climate of Central Europe is invigorating. In southern and western Europe it is quite warm.

**14. Inhabitants.**—The great majority of the inhabitants belong to the Xanthochroic and Melanochroic races; a few peoples, such as the Lapps, Finns, Magyars, Bulgarians, and Turks belong to the Mongoloid race.

**15. Religion.**—The Christian religion, as professed by the Roman Catholic, Protestant, and Greek Churches, is established in every part of Europe, except in Turkey, where Mohammedanism prevails.

## BRITISH EMPIRE.

**I. The British Empire** embraces the United Kingdom of Great Britain and Ireland, and the following colonies and dependencies; the whole containing an area of over 9,000,000 square miles, and a population of nearly 300,000,000. To visit these possessions in succession we may start from London, the great capital of the Empire, and with a glance at

Heligoland, near the mouth of the Elbe, proceed down the English Channel, pass the Islands of Alderney, Guernsey, Jersey, and Sark, and cross the Bay of Biscay. Thence rounding Spain, we touch first at

Gibraltar, an impregnable fortress. Entering the Strait of Gibraltar, we pass along the shores of the Mediterranean, and land at

Malta, celebrated for St. Paul's visit; thence we proceed to

Cyprus, an island belonging to Turkey, but occupied and administered by Britain, under treaty with that Power. Thence we retrace our course to the Atlantic, through the Strait of Gibraltar, and, sailing along the western coast of Africa, touch at the

Gambia River Settlements and Sierra Leone, on the African coast. From this we proceed south-eastward to

Cape Coast Castle, in Upper Guinea; and thence southward to

Ascension Isle, a lonely rock in the Atlantic. Leaving it, we come to

St. Helena, once the first Napoleon's place of exile. Southward, we come to the

Cape Colony, and the other Colonies in Southern Africa. Doubling the Cape northward, we call at

Mauritius and the Seychelles. Nearing the entrance to the Red Sea, we touch at the Peninsula of

Aden, and at the Islands of Socotra and Perim. Crossing the Arabian Sea, we reach

India; and, doubling Cape Comorin, touch at the island of Ceylon. Sailing across the Bay of Bengal, we come to

Aracan, Pegu, and Tenasserim. Passing the Settlements of

Wellesley and Malacca, on the Malay Peninsula, and

Prince of Wales Island, or Penang, we land at the island city of

Singapore. We then pass northward through the Chinese Sea to

Hong Kong Island, near Canton; and thence to

Labuan Isle, off the Island of Borneo, and the Province of Sarawak, in the north-west of that island. We now sail southward to

Queensland and the other Australian Colonies. Skirting its western shores, towards the south we come to

Tasmania, or Van Diemen's Land. Proceeding eastward, we visit

New Zealand. Leaving this, we sail northward to the Fiji Islands in Polynesia, and then south-eastward, a long course across the great Pacific Ocean, till, doubling Cape Horn, we come to

The Falkland Islands and South Georgia. Proceeding again northward along the eastern and northern shores of South America, we cross the equator, and land in

British Guiana. Thence north-westward through the

British West India Islands. Then south-west, past Cuba, we touch at

Belize, or British Honduras. Here crossing Central America, we proceed up the Pacific coast to

The Dominion of Canada, crossing which from west to east we come to

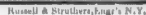
Newfoundland and its dependency Labrador. From the last we steer southward to the

Bermuda Isles. Thence crossing the Atlantic, we again reach the British Isles, after a voyage of about 35,000 miles

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Scale of Miles



## BRITISH ISLES.

1. The United Kingdom of Great Britain and Ireland includes England, Wales, and Scotland, called Great Britain, Ireland, the Isle of Man, and the Channel Islands, united under one sovereign and legislature. Great Britain is the largest island in Europe, and the most important in the world. Dover, at the south-east, is only 26 miles from Calais in France.

2. The Form of Government is an hereditary limited monarchy. The power of making laws is vested in Parliament, which consists of three branches of the Legislature, as follows: I. The Queen or King; II. The House of Lords, consisting of Bishops and Peers of the United Kingdom; and III. The House of



WINDSOR CASTLE.

Commons, consisting of 658 members, elected by the various counties, boroughs, and towns in England, Wales, Scotland, and Ireland. The Isle of Man and the Channel Islands are not represented in the House of Commons, but have separate legislatures of their own. They are, however, under the supreme jurisdiction of the Imperial Parliament.

3. Her Majesty the Queen, as the head of the Executive, is the first person in the realm. Her Court at London is held in St. James' Palace; but her state residence is at Buckingham Palace. Windsor Castle, on the Thames, is her chief residence in England. Osborne, in the Isle of Wight, and Balmoral, in Scotland, are private residences.

## ENGLAND AND WALES.

England, from *Engle*, or *Angles*, a Low-German tribe, and *land*. Wales, from the Anglo-Saxon *Wales*, foreigners; or from the Celtic *Gall*, the West. Area of England and Wales, equal to a square of 241 miles.



London, showing (1) St. James' Park, (2) Duke of York's Column, (3) National Gallery and Nelson Monument, (4) Horse-Guard's and Admiralty, (5) St. James' Palace, (6) Westminster Abbey, (7) St. Paul's Cathedral, (8) New Houses of Parliament, (9) Tower, (10) Surrey side of London.

1. **Noted For.**—England is noted for her Christian civilization; her great political freedom; her religious toleration; her universities; her literature; her just and equitable administration of law; her respect for authority; her insulated position; her mercantile marine; her magnificent harbors; her railroads and canals; her navigable rivers; her mineral wealth, more particularly in coal, iron, copper, and tin; her mineral springs; her agriculture, and her pre-eminence in commerce and manufactures.

2. **Boundaries and Extent.**—England and Wales are bounded on the north by Scotland, on the south by the English Channel, on the east by the North Sea, and on the west by St. George's Channel, the Irish Sea, and the Atlantic Ocean. From north to south it is about 400 miles in length; and in some places about 300 miles broad. Their joint area is about 37,320,000 acres.

3. **Physical Features.**—The surface of England is chiefly undulating, consisting of mountain and plain. The general aspect is varied and delightful, whilst that of Wales is bold, romantic, and mountainous. The three mountain districts in England and Wales are: 1. The Pennine chain, in the north; 2. The Cambrian mountains, in Wales, at the west; 3. The Devonian range, in Cornwall and Devon, at the south-west. These mountains may be subdivided into the Cheviot Hills in Northumberland; the Cumberland Hills, and the Snowdon chain in North Wales. In England and Wales there are 28 mountains between 2000 and 3000 feet in height, and 7 exceeding 3000 feet in height.

The Coast Line of England and Wales is about 2000 miles. The following are the Physical Features of the East Coast.

| MOUNTAINS.                                                                   | RIVERS.                                        | CAPES OR HEADS.                                                       | INLETS AND BAYS.                                           | ISLANDS.                    |
|------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------|-----------------------------|
| <i>Cheviot and Pennine</i> in part, turning southward.<br>Highest 2684 feet. | Tyne,<br>Ouse,<br>Humber,<br>Trent,<br>Humber. | Flamborough Spurn,<br>The Naze,<br>North Foreland,<br>South Foreland. | Humber,<br>The Wash,<br>Thames.                            | Holy.                       |
| Physical Features of the West Coast.                                         |                                                |                                                                       |                                                            |                             |
| <i>Pennine</i> , <i>Cambrian</i> , in Wales.<br>Highest 3571 feet.           | Mersey,<br>Severn.                             | St. Be.,<br>Great Orme's Head,<br>St. David's,<br>Land's End.         | Morecambe,<br>Cardigan,<br>Carmarthen,<br>Bristol Channel. | Man,<br>Anglesea,<br>Lundy. |
| Physical Features of the South Coast.                                        |                                                |                                                                       |                                                            |                             |
| <i>Devonian</i> , in Cornwall and Devon.                                     | Exe,<br>Tamar.                                 | Beaulieu,<br>Portland Bill,<br>Lizard.                                | Mount's Bay,<br>Plymouth,<br>Plymouth.                     | Wight.                      |

**Menai Strait**, a channel of North Wales, is about 14 miles long, and from 200 yards to 2 miles wide. It is crossed by a suspension-bridge, beneath which ships of the largest class may sail, and by an iron (railway) tubular bridge, at an elevation of 90 feet above high water.



The Lakes of England are *Derwent Water* (or Keswick Lake), in Cumberland; *Ullswater*, between Cumberland and Westmoreland; and *Windermere*, between Cumberland and North Lancashire.

4. **The Climate** of England and Wales, though variable, is healthy and agreeable. The country being insular, the climate is more temperate than that of other parts of Europe in the same latitude.

5. **Soil and Products.**—The soil of England is fertile, and is highly cultivated. Chief products: wheat, barley, oats, hops, vegetables, and fruits. Principal mineral productions: coal, iron, copper, lead, and tin. In Wales the soil is less fertile; but coal, iron, and other minerals are abundant.

6. **Inhabitants.**—The English people are, for the most part, the descendants of the Angles (from *Angeln* in Denmark), Saxons, Jutes, Danes, and Normans, who at different times invaded and conquered the country. In Wales and Cornwall the people are mostly descended from the ancient Britons.

7. **Religion.**—The Protestant Episcopal Church of England is the established religion. For all other religious persuasions, however, there is complete toleration.

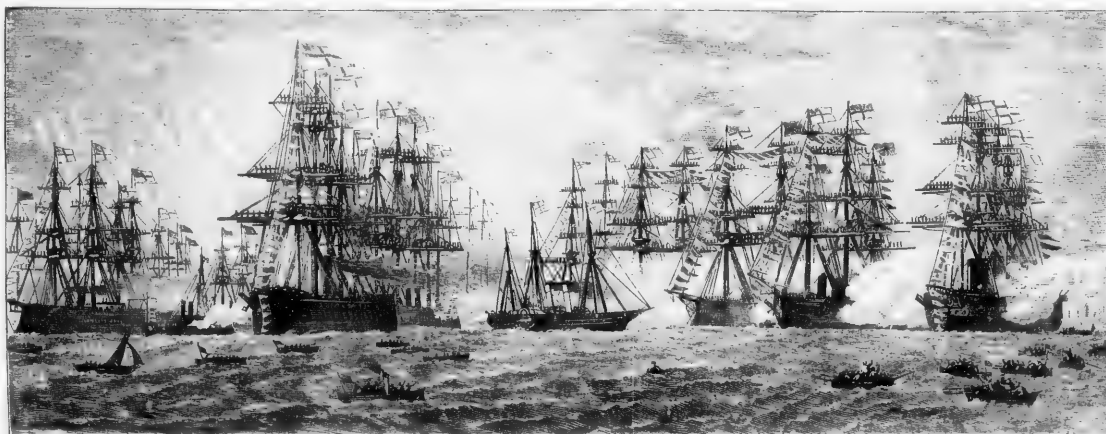


HER MAJESTY QUEEN VICTORIA.

8. **The Manufactures** of England are more extensive and important than those of any other country in the world. They include cotton, woollen, silk, leather, metal, and earthenware, and are exported to every part of the globe. The Welsh manufactures are principally slate, iron, and tin.

9. **The Travelling Facilities** are abundant. The common roads are excellent, and, in addition to the canals, there are railways radiating from the great centres of trade in every direction. There is also steam communication between all the principal ports in the kingdom. Electric telegraph lines extend from London to all parts of the United Kingdom, and to the European Continent.

10. **Civil Divisions.**—The present division is into counties or shires, which owe their origin to King Alfred. There are forty counties in England, viz.: 6 *Northern*, lying north of the Mersey and Humber Rivers; 5 *Eastern*, on the coast between the Trent and Thames; 19 *Midland*, between the Mersey and Thames Rivers and Wales; and 10 *Southern*, south of the Lower Avon and Thames. There are twelve counties in Wales.



BRITISH NAVAL REVIEW.

#### 11. The Chief Industrial Centres, near the coal mines, are as follows:

| CHIEF INDUSTRIAL CENTRES.                                           | SITUATED IN THE | PRINCIPAL MANUFACTURING TOWNS.                | NATURE OF MANUFACTURES, ETC.           |
|---------------------------------------------------------------------|-----------------|-----------------------------------------------|----------------------------------------|
| Northumberland and Durham, Lancashire and Yorkshire, Staffordshire. | Coal Districts. | North-East. Newcastle and Darlington.         | Machinery, chemicals, and cloth.       |
|                                                                     |                 | North-West. Manchester, Leeds, and Sheffield. | Cotton and woollen goods, and cutlery. |
|                                                                     |                 | Middle. Birmingham and Burslem.               | Hardware and pottery.                  |
| South Wales.                                                        |                 | South-West. Swansea and Merthyr Tydvil.       | Smelting copper and casting iron.      |

12. **Seats of Commerce.**—London, Hull, Newcastle, Sunderland, and Yarmouth, on the east coast;

Liverpool and Bristol, on the west;

Dover, Portsmouth, Southampton, Plymouth, and Falmouth, on the south; Swansea and Cardiff, on the Welsh coast.

13. **Chief Cities.**—(a.) London (3,600,000), the capital and the metropolis of the British Empire, is situated on both banks of the Thames, about 50 miles from its mouth. The river is crossed by seven bridges, and by the Thames Tunnel, a passageway built under the bed of the river. The city contains many fine edifices, such as the Bank of England, Royal Exchange, Mansion House (Lord Mayor's residence), Houses of Parliament, Westminster Abbey, St. Paul's Cathedral, the Mint, National Gallery, British Museum, and St. James' and Buckingham Palaces. It has also numerous spacious and beautiful parks. London is the largest and wealthiest, as well as the greatest commercial city in the world. It has an area of about 100 square miles; 900 churches, and 560 hospitals, workhouses, and other charities. It is the seat of one of the four English Universities.

Near London is the Sydenham Crystal Palace, and Greenwich, which contains the National Astronomical Observatory, from the meridian of which degrees of longitude are reckoned; also a celebrated naval hospital for disabled seamen. Chelsea, with a military hospital, is situated on the Thames, four and a half miles above London.

(b.) **On the North-East.**—*Newcastle-upon-Tyne*, and *Sunderland*, on the coast, have extensive manufactures and a coal trade. *Durham*, on the Wear, is the seat of a University. *York*, on the Ouse, is noted for having been the residence of several Roman Emperors, and as being the seat of an Anglican Archbishopric. Its cathedral, or minster, is the best specimen of Gothic architecture in England. *Hull*, on the Humber estuary, is one of the chief English seaports.

(c.) **On the Norfolk Peninsula.**—*Norwich*, on the Yare, is noted for its manufactures and for its beautiful cathedral. *Yarmouth*, at the mouth of the Yare, is the chief seat of the herring fishery.

(d.) **Cambridge**, on the Cam, and *Oxford*, on the Cherwell and the Isis, or Thames, are celebrated for their Universities. Oxford University is the most richly endowed university in the world. It has 24 colleges and halls, and the Bodleian Library, and a new Museum. Cambridge University has 21 colleges and halls, and a Library and Museum.

(e.) **Kent and Sussex Peninsula.**—*Margate*, *Brighton*, and *Tunbridge Wells* are celebrated watering places.

*Sheerness*, *Chatham*, and *Woolwich* are naval arsenals and dockyards.

*Dover* is a port of embarkation for the continent of Europe.

*Canterbury* is the ecclesiastical capital.

(f.) **Southern Coast.**—*Portsmouth* and *Plymouth* are important naval stations, and the sites of the principal Royal dock yards. Plymouth is celebrated for its artificial breakwater.

*Southampton* is the chief southern port for the Ocean steamers, plying to the Mediterranean, and to the United States of America.

*Wexham*, Isle of Wight, contains a royal palace, named *Osborne*, the favorite summer residence of Queen Victoria.

(c.) **Severn and Avon Basin.**—*Bristol*, on the Lower Avon, is the third chief seaport city in the kingdom.

*Stratford*, on the Upper Avon, is famous as the birth and burial place of Shakspeare.

*Bath* is noted for its medicinal mineral springs.

*Kidderminster* is noted for carpets.

(h.) **Manufacturing Districts.**—*Manchester* is noted for its cotton manufactures.

*Macclesfield* for silks.

*Leeds* for woollens.

*Sheffield* for cutlery.

*Nottingham* for hosiery and lace.

*Gloucester* is noted for the manufacture of pins.

*Coventry* is the chief seat of ribbon manufacture.

*Wolverhampton* is noted for hardware.

*Birmingham* for hardware.

*Worcester* for gloves and porcelain.

*Burslem* for earthenware.

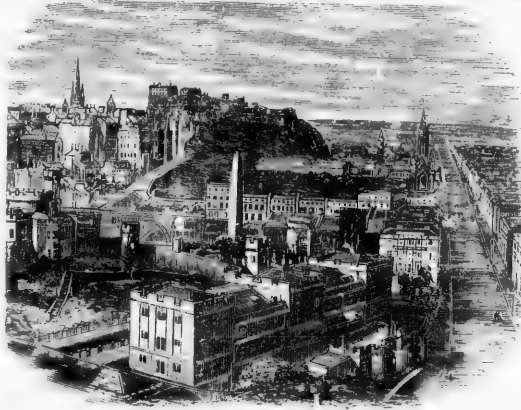
*Newcastle* for ship building.

(i.) **Liverpool**, situated on the east bank of the River Mersey, about 200 miles from London, which it rivals not only in extent of its commerce, but in its shipping. It carries on an immense trade with all parts of the world. About 25,000 ships enter the port annually. Its magnificent docks are very commodious and extensive, and in these regards are, perhaps, unequalled in the world. It contains many fine buildings; especially St. George's Hall, which includes the town hall, music hall, and law courts. Near it is Brown's Free Library.

(j.) **Chief Welsh Cities.**—*Caermarthen* is the capital of South Wales; *Caernarvon* is the capital of North Wales; *Eangor*, on Menai Strait, is a watering place; *Anglesea* is a seaport, and the greatest copper market in the world; *Merthyr Tydvil* has the largest smelting furnace in the world; *Cardiff* is an important seaport; *Holyhead*, in the Island of Anglesea, is the chief steam packet station between England and Ireland.

## SCOTLAND.

From the *Scots*, an ancient Celtic tribe. Formerly called *Albion*, *Caledonia*, etc. Size, equal to a square of 175 miles.



EDINBURGH.

1. **Noted For.**—Scotland is noted for its picturesque scenery, its numerous friths, and its extensive manufactures.

2. **Boundaries and Extent.**—Scotland is bounded on the north and west by the Atlantic Ocean; on the south by the Irish Sea and England; and on the east by the North Sea. Its extreme length is 287 miles. Its breadth varies from 24 to 217 miles.

3. **Physical Features.**—Scotland is a picturesque and mountainous country, particularly towards the north-west. The Lowland districts, which lie chiefly toward the south, are rich and fertile. The principal mountain ranges are the Northern Highlands and the Grampian, the Lowther, and the Cheviot Hills. These run chiefly in a south-western direction; and the plains or valleys between them are so deeply indented by rivers and friths, that few parts of Scotland are inaccessible from the sea. The coast line measures 2500 miles. As the slope is chiefly toward the east, all the principal rivers, except the Clyde, flow in that direction. Staffa, a small island north of Iona, is remarkable for its basaltic columns and caverns, the principal of which is Fingal's Cave, one of the greatest natural curiosities in the world. The central part of Scotland is rich in minerals.

### Physical Features of the East Coast.

| MOUNTAINS.                     | RIVER.                                                                                                            | CAPES OR HEADS.                                                                       | FRITHS AND LOCHS.                     | ISLANDS.                               |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------|
| Northern Highlands, 4500 feet. | Sney, 100 miles.<br>Dow, 60 miles.<br>Dee, 50 miles.<br>Tay, 140 miles.<br>Forth, 170 miles.<br>Tweed, 100 miles. | Duncansby.<br>Tulbar Ness.<br>Kinnaird's.<br>Buchan Ness.<br>Fife Ness.<br>St. Abb's. | Dornoch.<br>Moray.<br>Tays.<br>Forth. | Orkney.<br>Shetland, at the Northeast. |

### Physical Features of the West Coast.

| MOUNTAINS.                     | RIVER.                                                                                                             | CAPES OR HEADS.                                                                   | FRITHS AND LOCHS.                     | ISLANDS.                               |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------|----------------------------------------|
| Northern Highlands, 4500 feet. | Clyde, 100 miles.<br>Dow, 60 miles.<br>Dee, 50 miles.<br>Tay, 140 miles.<br>Forth, 170 miles.<br>Tweed, 100 miles. | Walls.<br>Tulbar Ness.<br>Kinnaird's.<br>Buchan Ness.<br>Fife Ness.<br>St. Abb's. | Dornoch.<br>Moray.<br>Tays.<br>Forth. | Orkney.<br>Shetland, at the Northeast. |

Lochs, or Lakes, are numerous in the middle and northern parts of the country. The principal are Shin, Ness, and Lomond.



SCENE IN THE HIGHLANDS OF SCOTLAND.

4. **The Climate** of the Lowlands resembles that of England, though it is more moist. In the Highlands it is much colder.

5. **Soil and Products.**—In the Lowlands the soil is good and well cultivated. The Highlands are better adapted for the rearing of sheep and cattle. Barley, oats, and wheat are the staple products. The principal minerals are coal, iron, lead, stone, and slate. The coast fisheries of Scotland are very valuable.

6. **The Inhabitants** are made up of two great divisions, viz.: the Highlanders, who are of the Celtic race; and the Lowlanders, who are of Scandinavian and Anglo-Saxon origin.

7. **The Established Religion** is the Presbyterian, but all others are free.

8. **Travelling Facilities.**—Excellent roads extend throughout the country; canals and rail ways are numerous.

9. **Civil Divisions.**—Scotland contains thirty-three counties, viz.: 10 *Northern*; 10 *Central*; and 13 *Southern*.

10. **Industrial Centres.**—These may be considered as threefold: including (1.) the coast and river fisheries, (2.) the agricultural and grazing districts in the Lowlands and Highlands, and (3.) the manufacturing. This last, by far the most important, centres in the coal districts, which stretch from Fifeshire to Ayrshire. The manufactures include those in iron, linen, cotton, silk, and wool. Ocean steamers and other vessels are extensively built.

11. **Seats of Commerce.**—*Leith*, *Dundee*, *Montrose*, and *Aberdeen*, on the east coast;

*Glasgow*, *Greenock*, *Ayr*, and *Port Patrick*, on the west coast;

*Kirkcudbright* and *Annan*, on the south coast.

12. **On the East Coast.**—(a.) *Edinburgh* (226,000), the metropolis of Scotland, is situated near the Frith of Forth. It is a picturesque city, and is noted for its Castle, for the ancient Royal Palace of Holyrood House, and for its University, Churches, public institutions, and schools. Prince's Street, which divides the Old and New Towns, is a handsome thoroughfare, and contains a beautiful monument to Sir Walter Scott. The New Town is well laid out, and the buildings are of a superior class.

**Leith** (54,000), the seaport of Edinburgh, has great trade with the Baltic.

**Inverness**, at the mouth of the Ness, has iron foundries and breweries. Near it is **Culloden Moor**, where the Pretender was defeated in 1746.

**Peterhead**, near Buchan Ness, is engaged in the whale and herring fisheries. It exports large quantities of granite.



BALMORAL CASTLE, THE QUEEN'S HIGHLAND RESIDENCE.

**Aberdeen** (98,000), the fourth city in size in Scotland, situated on the north bank of the Dee, is a large and handsome city, and carries on an extensive export trade in agricultural products. It contains a university.

**Balmoral**, 45 miles inland, on the Upper Dee, is the Highland residence of Queen Victoria.

**Montrose**, a seaport south of Aberdeen.

**Dundee** (113,000), is an important seaport on the north bank of the Tay. It is noted for its extensive exports of linen and hempen goods.

**Perth**, at the head of the Frith of Tay, was once the capital of Scotland. It is a centre of trade. **St. Andrews**, contains the oldest university in Scotland, founded in 1411.

**At the South.**—**Dumfries**, on the east bank of the Nith, is the great mart for the agricultural produce of Southern Scotland. The poet Burns is buried here.

**Kirkcudbright**, on the Dee, has the best harbor in the south of Scotland. It exports granite.

**At the West.**—**Glasgow** (556,000), 43 miles from Edinburgh, on the Clyde, and the chief seat of Scottish manufactures and commerce, is the second city in Great Britain for population. It has a fine cathedral, and a university founded in 1450. The engine making and steamship building of the Clyde are famous.

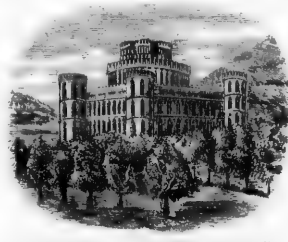
**Greenock** (70,000) is the chief seaport of the west of Scotland. It is noted for its shipbuilding, sugar refining, and extensive commerce.

**Paisley** (49,000) is celebrated for the manufacture of shawls.

**Kilmarnock** is noted for its carpets and tartans.

**Inverary**, near the head of Loch Tyne, noted for its magnificent castle.

**On the Forth.**—**Sterling**, whose castle is so historically interesting, was formerly the residence of the Scottish kings. Near it is the field of **Bannockburn**, where, in 1314, Bruce defeated Edward II.



INVERARY CASTLE, SEAT OF THE DUKE OF ARGYLL.

## IRELAND.

The name is probably derived from *Iar Inna* (Celtic), the Western Isles, whence its name *Erin*. (Lat. name *Hibernia*.) Area, equal to a square of 180 miles.

**1. Noted For.**—Ireland is noted for its beautiful scenery and its fertility. The greenness of its verdure has given it the name of the *Emerald Isle*.

**2. Boundaries and Extent.**—Ireland is bounded on the north, west, and south by the Atlantic Ocean, and on the east by the North Channel, the Irish Sea, and St. George's Channel. Its greatest length 306 miles, its greatest breadth 180 miles.

**3. Physical Features.**—The surface is chiefly undulating. The coast line of about 2200 miles, is very irregular, and encloses many beautiful bays. The mountains are generally near the coast, and are most numerous in the north and the west. The highest summit in Ireland is one of the Macgillcuddy's Reeks, County Kerry. In the County Antrim, is the Giant's Causeway, a basaltic promontory, composed of many thousand pillars, closely united together with beautiful regularity. In the central part of the island are immense tracts of country called bogs, producing little else than heath, bog myrtle, and peat. The landscape of Ireland is beautiful; and the scenery of the Lakes of Killarney, of the Western Coast, of the County Wicklow, and of the Southern Coast is highly picturesque.

### Physical Features of the North Coast.

| PRINCIPAL MOUNTAINS. | PRINCIPAL RIVERS.        | CAPES OR HEADS.                     | BAYS OR INLETS.                 | ISLAND            |
|----------------------|--------------------------|-------------------------------------|---------------------------------|-------------------|
| Sperrine.            | Foyle.<br>Dun, 40 miles. | Fairhead.<br>Malin.<br>B. Foreland. | Lough.<br>Swilly.<br>Shaghaven. | Rathlin.<br>Tory. |

### Physical Features of the East Coast.

|                                         |                                                                                 |                                            |                                                          |                           |
|-----------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------|---------------------------|
| Moone, 276 feet.<br>Wicklow, 2029 feet. | Lagan, 34 miles.<br>Bovine, 80 miles.<br>Liffey, 52 miles.<br>Slaney, 72 miles. | Lough.<br>Wicklow.<br>Carlow.<br>Greenore. | B. Inlet.<br>Dundrum.<br>Dundalk.<br>Dublin.<br>Wexford. | Lamkey.<br>Ireland's Eye. |
|-----------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------|---------------------------|

### Physical Features of the South Coast.

|                           |                                                                                   |                                          |                                               |       |
|---------------------------|-----------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------|-------|
| Galtee.<br>Knockmeledown. | Darow, 113 miles.<br>Suir, 100 miles.<br>Blackwater, 100 miles.<br>Lee, 15 miles. | Cansore.<br>Kinsale.<br>Clear.<br>Mizen. | Waterford.<br>Dungarvey.<br>Cork.<br>Kinsale. | Cork. |
|---------------------------|-----------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------|-------|

### Physical Features of the West Coast.

|                                                               |                                    |                                                                            |                                                                                    |                          |
|---------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|
| Macgillcuddy Reeks.<br>Highest 4000 feet.<br>Galway.<br>Mayo. | Shannon, 221 m.<br>Erne, 60 miles. | Dunmore.<br>Killybeg.<br>Long.<br>Slieve.<br>Achill.<br>Erris.<br>R. Carr. | Derry.<br>Larne.<br>Bangor.<br>Shannon.<br>Cleve.<br>Galway.<br>Derry.<br>Donegal. | Achill.<br>North Antrim. |
|---------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|



SACKVILLE STREET, WITH THE POST OFFICE AND NELSON'S PILLAR, DUBLIN.

The **Shannon** is the largest river in Ireland. It flows 164 miles southward through the centre of the country to Limerick; thence 60 miles westward, into the Atlantic Ocean.

**Clonmacnoise**, on its banks, in King's County, contains two of the many celebrated Round Towers of Ireland, the origin of which is still unknown, and some of the beautiful ancient Tombstone Crosses.

**The Lakes, or Loughs**, are numerous. The principal are Swilly, Foyle, Neagh, Belfast, and Strangford, at the north-east; Ree and Derg, in the centre; Conn, Mask, and Corrib, at the west; and the picturesque Lakes of Killarney, at the south-west.

**4. The Climate** is moister, but more equable than that of England, being less warm in summer, and milder in winter.

**5. Soil and Products.**—The soil generally is very fertile. The quantity of rain which falls makes the grass grow abundantly. Dairy husbandry and cattle rearing are extensively followed. Flax is much cultivated. Chief minerals: coal, copper, iron, and marble. The chief manufactures are linen and poplin goods; which, with muslin sewing and lace making, give employment to great numbers.

**6. Population.**—The inhabitants are chiefly of Celtic origin; but people of Anglo-Saxon descent have settled all over the island. In some parts of Ulster the people are descendants of Scottish colonists introduced by James I. Irish Gaelic is the native language, now chiefly confined to the west.

**7. Religion.**—The Protestant or Anglican Episcopal Church was disestablished and disendowed in 1869. Throughout the island the people are chiefly Roman Catholics, except in Ulster, where the majority are Presbyterians.

**8. Travelling Facilities.**—The common roads are very good, and there are several canals for internal trade. Railways also connect Dublin with Belfast, Londonderry, Cork, Limerick, Galway, Waterford, and other places.

**9. Manufactures and Exports.**—Linen is the chief and most valuable manufacture. Cotton goods are extensively manufactured around Belfast, and Irish poplin, a fabric of silk and worsted, in Dublin. These, with dairy and agricultural produce, cattle, etc., form the chief articles of export.

**10. Civil Divisions.**—Ireland is divided into four provinces, comprising thirty-two counties:

**Ulster**, containing 9 counties; chief seaports, *Belfast*, and *Londonderry*.

**Leinster**, containing 12 counties; chief seaports, *Dublin*, and *Wexford*.

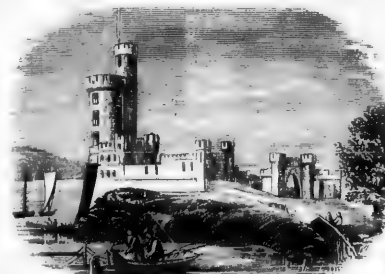
**Munster**, containing 6 counties; chief seaports, *Cork*, *Queenstown*, *Waterford*, and *Limerick*.

**Connaught**, containing 5 counties; chief seaports, *Galway*, and *Sligo*.

**11. Chief Cities.**—**On the East Coast.**—**Dublin** (315,000), the metropolis of Ireland, situated on both sides of the Liffey, is one of the finest cities in Europe, and is distinguished for the number and elegance of its public buildings. It contains the University of Dublin (Trinity College), founded by Queen Elizabeth.







BLACK ROCK CASTLE, NEAR CORK.

*Kingstown*, eight miles east of the city, is the mail-packet station for Dublin.

**Belfast** (175,000), is noted for its linen manufactures, and its foreign and domestic trade. It is the seat of one of the Queen's Colleges.

**On the North Coast.**—**Londonderry** (25,000), a flourishing town on Lough Foyle, is noted for its shirtmaking, and its large trade.

*Moyle*, its port, is a place of call for the Allan line of Canadian mail steamships.



ANCIENT ROUND TOWERS AND CROSS AT CLONMACNOISE.

in 1591, the Queen's University (the Colleges of which are at Belfast, Cork, and Galway), and a Roman Catholic University.

Phoenix Park is a favorite place of resort for the citizens.

Sackville Street, a prolongation of Grafton and Westmoreland Streets, is the principal thoroughfare, and is a wide and handsome street.

**On the South Coast.**—**Waterford**, on the Suir, is noted for its fine quay and harbor.

**Cork** (78,000), in size and population the third city in Ireland, is situated on the Lee, and is the chief commercial city of the south of Ireland, and largely exports grain and provisions. It has manufactures of leather, iron, gloves, and glass, and is the seat of one of the Queen's Colleges.

**Queenstown** is a naval depot, and has one of the finest natural harbors in the world. The principal fortifications are on Spike Island, a convict establishment. The entrance to the harbor is defended by Camden and Carlisle forts. Queenstown is a place of call for the mail steamers running between England and America.

**At the West.**—**Limerick** (40,000), the fourth city in Ireland, is beautifully situated on the Shannon, the largest river in Ireland. This city is remarkable for its fine bridges, its extensive manufacture of lace and gloves, and its commercial enterprise.

**Galway** is the seat of one of the Queen's Colleges. It is connected with Dublin by rail.



BLARNEY CASTLE, NEAR CORK.



QUEENSTOWN (COVE OF CORK).

## BRITISH DEPENDENCIES IN EUROPE.

### I. GIBRALTAR, AND II. HELIGOLAND.



ROCK AND TOWN OF GIBRALTAR, FROM THE NEUTRAL GROUND.

1. **Gibraltar** (*Djebel Tarik*, Mountain of Tarik, the Moor or Saracen who landed here in 711) is a high rock at the south of Andalusia, in Spain, and forms the key to the Mediterranean. Its fortress, of 1000 guns, is the most celebrated in the world. Caverns and galleries, for communication and defence, have been cut in the solid rock.

2. **The Town**, situated on the western declivity, is a single spacious street, paved and lighted. Gibraltar is a free port, and the chief centre of British commerce with the adjoining countries. It was founded by Tarik, a Moor, in 711; ceded to Spain in the fifteenth century and captured by the English in 1704. It is only 30 miles from Tangier, the commercial capital of Morocco, in Northern Africa.

3. **Heligoland**, or **Heligoland** (Holy Land), is a rocky island, 200 feet high, 46 miles north-west from the mouths of the Elbe and Weser, and contains a village and a light house. It was taken from Denmark in 1807, and is now a watering place. It was held in high veneration in the Middle Ages.

### III. THE ISLANDS OF MALTA, GOZO, AND COMINO.

1. **Position, etc.**—This group lies in the Mediterranean, between the Island of Sicily and the Continent of Africa. Area 143 square miles; population 160,000.

2. **Physical Features, etc.**—**Malta** is the principal island. It is 17 miles long by 9 wide. Except at the south side the coast is deeply indented. The surface is rocky, and has little depth of soil. Cotton is the staple product. The vine, figs, oranges, and olives are abundant. Being central in the Mediterranean, it is a great commercial depot. **Valetta** is the capital. It has fine docks, and is well fortified. Population about 32,000. **Gozo**, nine miles long by four and a half wide, is more fertile. Its Giant's Tower is the chief object of interest. **Comino** is a very small island; population only 900. Off Comino lies **Cominotto**.

3. **History.**—Malta is said to be the Melita on which St. Paul was shipwrecked. Peopled by the Phœnicians and held by them, it passed successively under the dominion of the Carthaginians, Romans, Saracens, and Sicilians; and in 1222 was granted by Charles V. to the Knights of the Order of St. John of Jerusalem. It was taken by Napoleon I. in 1798; by England in 1800, and finally ceded to her in 1814.

### IV. THE ISLE OF MAN, AND THE CHANNEL ISLANDS.

1. **The Isle of Man** (anc. *Mona* or *Menavia*), may be said to belong to Scotland rather than England. It lies between England and Ireland. It is 31 miles west from the English coast; 18 miles south from the coast of Scotland; and 40 miles east from that of Ireland. From the tenth to the thirteenth century it was under the dominion of Norway. In 1266 it was ceded to Alexander III., King of Scotland. It has a Bishop, known by the title of the Bishop of Sodor and Man, but he has not a seat in the House of Lords. Under Henry IV. it was conferred on the family of Stanley, afterwards Lord Derby. By marriage it descended to the Duke of Athol, who, in 1765, ceded it to the British Crown for £72,000 sterling. It is not governed by the laws of England, nor affected by any particular act of Parliament, unless it is particularly named in it. **Castletown** is the capital.

2. **The Channel Islands** lie off the French coast. They are **Jersey**, **Guernsey**, **Alderney**, and **Sark** (or **Serq**). They formed part of the Dukedom of Normandy, and were retained by England when the duchy was relinquished. In 1138 they were formally annexed by Henry I. to the British Crown. They are governed by their own laws; but an appeal lies from the courts to the Privy Council of England.

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# IRELAND

Scale of Miles

0 10 20 30 40 50



Russell & Struthers, Rigg's N.Y.

## KINGDOM OF PORTUGAL.

The name Portugal only came into use about the 11th Century. In the Roman period, there was a town called *Calle*, now Oporto, near the mouth of the Douro; and this town having been much frequented, the ignorance of the middle ages conferred on the surrounding region the name *Porto Calle*. Its ancient name was *Lusitania*. Size, equal to a square of 186 miles.

**1. Noted For.**—Portugal is noted for its wild, beautiful, and fertile valleys; its flora, exceeding 4000 species; and formerly for its commercial greatness; but now for its wines and fruits.

**2. Position.**—This kingdom is bounded on the north and east by Spain, and on the south and west by the Atlantic Ocean. It extends from Cape St. Mary in 37° 3' North Latitude to its most northern point on the river Minho in 42° 11' North Latitude, and from its most eastern point upon the River Douro in 7° 20' West Longitude to its most western, Cape Roca in 9° 30' West Longitude.

**3. Physical Features.**—Its surface is agreeably diversified, and gradually slopes from the north toward the Atlantic Ocean. Its principal rivers, the Douro, the Tagus, and the Guadiana rise in Spain. The chief mountain range is the Sierra Estrella. The chief capes are St. Vincent, famous for the defeat of the Spanish fleet in 1797 by the British Admiral Jervis, St. Maria, Espichel, and Roca. The coast is high and rocky.

**4. Soil and Products.**—The soil is rich, and the climate mild and salubrious. The products are similar to those of Spain. The vine flourishes in the north; and the olive, the orange, the lemon, and the citron in the south. Iron, mercury, copper, lead, salt, building stone, beautiful marbles, and wool are abundant.

**5. The Inhabitants** are the same as those of Spain, but their language is different. Roman Catholicism is the established religion of Portugal. Agriculture is neglected, but the vine is much cultivated.

**6. The Travelling Facilities** are not good. There are no canals; and the navigation of the rivers is often interrupted by droughts. Lisbon is connected by railway with Oporto, and with Badajoz on the Spanish frontier. A line of railway also connects Lisbon with Evora and Beja.

**7. Civil Divisions.**—Portugal was formerly divided into six provinces. It is now divided into seventeen smaller provinces. There are also two insular provinces, the Azores and Madeira Islands respectively.

**8. Chief Cities.**—In the North.—*Braga*, the ecclesiastical metropolis of Portugal, on the Cavado; and *Mirandella*.

On the Douro.—*Oporto (The Harbor)* (108,000) has extensive trade in port wine, from which it takes its name. It was the birthplace of Magellan the navigator.



CITY OF OPORTO, NEAR THE MOUTH OF THE DOURO RIVER.

On the Mondego.—*Coimbra* contains the only university in the kingdom. North-east of Coimbra is *Bussaco*, where Wellington defeated the French under Massena, in 1810.

On the Tagus.—*Lisbon* (265,000), capital of the kingdom, is well situated on the bank of the river, and has a fine wide harbor. It was nearly destroyed by the great earthquake of 1755, when about 60,000 people perished. North-west of Lisbon are *Vimiera* and *Torres Vedras*, famous in the campaigns of Wellington.

The other Chief Cities are *Evora* (anc. Eboræ), noted for hardware and leather, and *Miraflores*. *Sines* is the birthplace of the navigator Vasco de Gama.

**9. The Azores**, from agor, a hawk, lie west of Portugal. *Angra*, on Terceira, is the capital of the group. St. Michael's, the largest, is famous for its oranges.

The *Madeiras* (wood) lie west of Morocco. The chief produce is wine. *Funchal*, on the south side of Made, is the capital.

**10. Colonies.**—The Portuguese were the first to double the Cape of Good Hope, on their way to India. They held Brazil till 1825. Their principal colonial possessions are the *Cape Verde Islands*, in the Atlantic; *Bissau*, and the Islands of *St. Thomas* and *Prince's*, on the Guinea coast; *Ajudá*, *Angola*, *Ambriz*, *Benguela*, *Mossamedes*, and *Mozambique* in Africa; *Goa*, *Salsette*, *Daman*, and *Diu*, in Hindostan; *Macao*, in China; and *Florès*, *Solor*, and part of *Timor*, in Malaysia.

## KINGDOM OF SPAIN.

Spain was known to the Greeks under the name *Iberia*, probably derived from the Hebrew *Eber*, from the Syriac or Phœnician *Ebra* or *Ibra*. It was also called *Hesperia* by the Greeks. It was called *Hispania* by the Romans. Spain is said to be derived from *Sphanjah*, or the "land of rabbits," because it abounded in these animals. Size, equal to a square of 440 miles.

**1. Noted For.**—Spain (Span. *España*) is noted for its former commercial and military greatness, and extensive efforts at colonization. It is now chiefly noted for its wine, raw silk, and merino wool.

**2. Boundaries.**—Spain is bounded on the north by the Bay of Biscay and the Pyrenees; on the east by the Mediterranean Sea; on the south by the Mediterranean Sea and the Atlantic; and on the west by Portugal and the Atlantic.

**3. Physical Features.**—The interior is diversified, and consists of high table lands, separated by mountain ranges and drained by several rivers. The principal ranges are the Pyrenees at the north, the mountains of Castile, and the Sierras, or saw-shaped ranges, of Toledo, Morena, and Nevada, in the interior. The greater part of the country is fertile, and is covered with a luxurious vegetation, especially in the south, which in some places seems a garden of perpetual bloom. The principal rivers are the Douro and Tagus, flowing through Portugal into the Atlantic; the Guadalquivir and Guadiana, flowing southward; and the Ebro, flowing into the Mediterranean. The most noted capes are Ortegal, Finisterre (land's end); Trafalgar, famous for Nelson's victory in 1805; Tarifa (from which we derive our word tariff), the southernmost point of Europe; Gata, Palos, and St. Martin.



QUICKSILVER MINE.

**4. Soil and Products.**—The soil is generally fertile, and the climate dry. In the north, where the climate is temperate, the apple flourishes, the hills are covered with oak and chestnut, and the valleys yield rich harvests of grain; but the high plateaus of the centre are destitute of trees. In the south, where the climate is warm, the fig, the olive, the vine, the cactus plant for the cochineal insect, the orange, and the sugar cane flourish. Fruits are abundant; also coal, lead, iron, and quicksilver.

**5. Inhabitants, etc.**—The Spaniards are a mixture of the Iberian, Celtic, Gothic, Roman, and Arabic races. The population, almost entirely Roman Catholic, is about 16,350,000, of which about 50,000 are Gypsies. Agriculture, the cultivation of the grape, and the rearing of merino sheep form the leading pursuits.

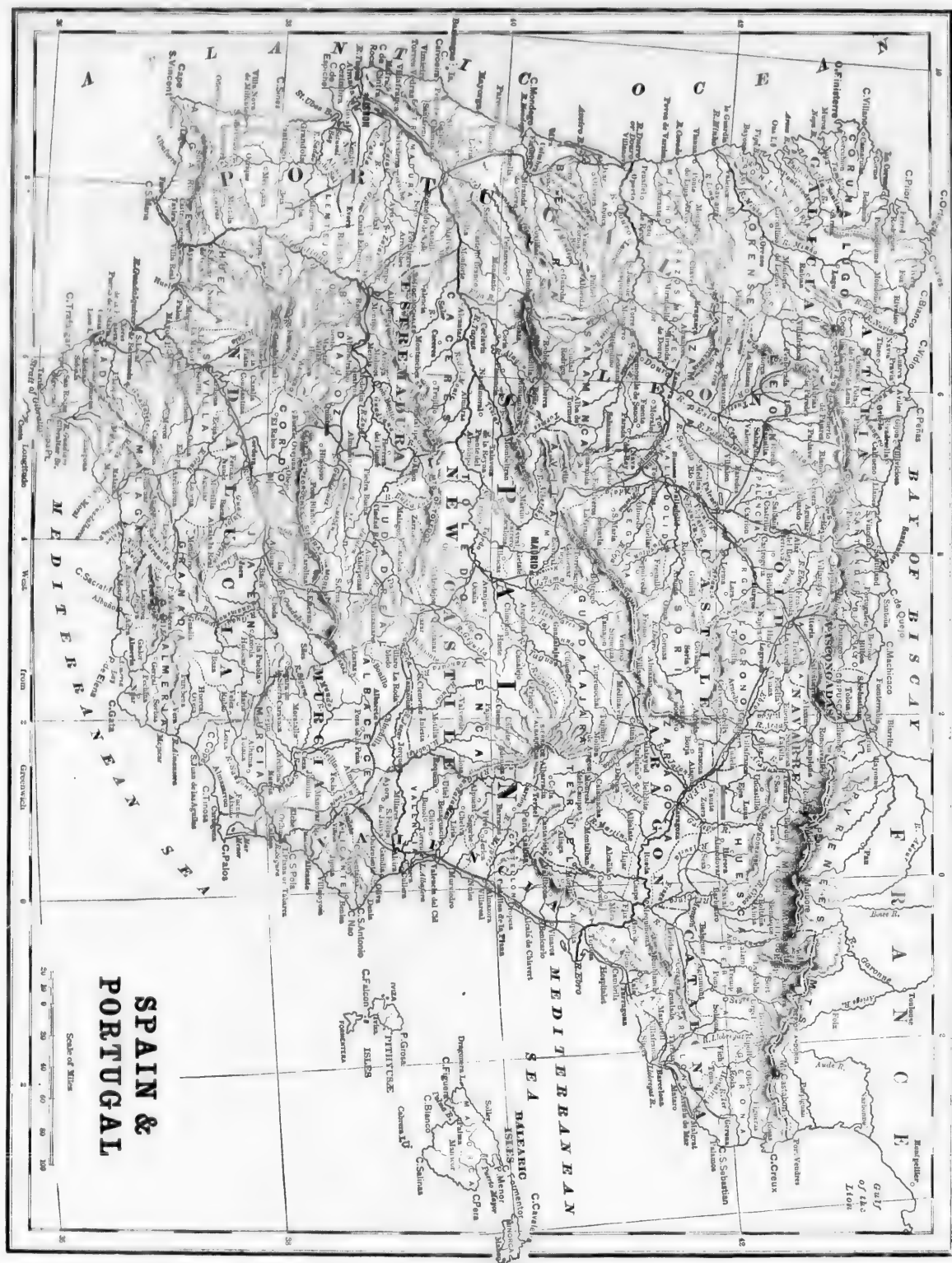
**6. The Travelling Facilities** are not numerous; and mules furnish the chief means of internal transport. There are now several railways. The rivers have few bridges, and have generally to be forded. The canals are not well constructed.

**7. Manufactures, Exports, etc.**—The principal manufactures are silks, leather, saltpetre, and iron. The chief exports are wines, wool, oils, fruits, quicksilver, and Spanish flies.

**8. Provinces.**—Previous to 1833, Spain contained fourteen provinces; but it is now divided into forty-seven, or, including the Balearic and the Canary Islands into forty-nine provinces.

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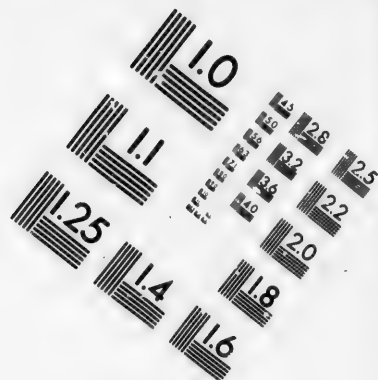
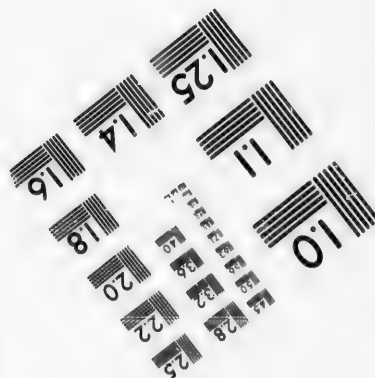
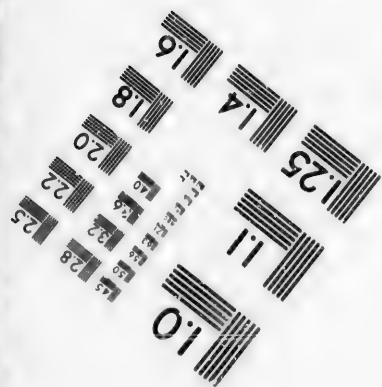
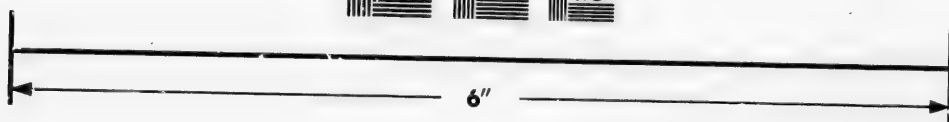
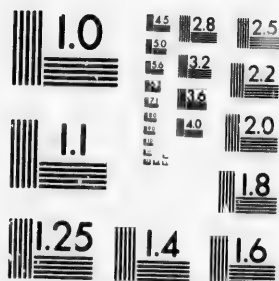


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**9. Chief Towns.**—(a.) *On the North Coast.*—*St. Sebastian*, taken by the British from the French in 1813; *Bilbao* and *Santander*, seaports; *Ferrol*, a naval arsenal; and *Corunna*, noted for its herring fisheries and cigars, whence the Spanish Armada, designed for the conquest of England, sailed in 1588, and where Sir John Moore fell in battle in 1809. South of Corunna is *Santiago*, famous for its cathedral.

(b.) *In the Duero Basin.*—*Valladolid* (50,000), where Columbus died in 1506, and *Burgos*, are noted for their cathedrals, and for having been capitals of the kingdom. *Segovia* has an aqueduct built by the Roman emperor Trajan. *Salamanca* has a university. *Ciudad Rodrigo* is a fortified town.

(c.) *In the Tagus Basin.*—*Toledo*, a former capital, is famous for its sword manufactures.



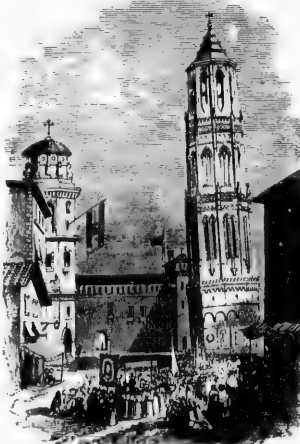
MADRID.

*Madrid* (385,000), the present capital, is situated near the Manzanares, a tributary of the Tagus. It is nearly eight miles in circuit, and surrounded by walls. The Palace of the Escorial, built in honor of St. Lorenzo by Philip II., is 24 miles north-west of the city, and contains a splendid mausoleum for the Spanish sovereigns; a fine collection of paintings, a large library, and a college.

(d.) *In the Guadiana Basin.*—*Badajoz*, a fortified frontier city; *Medin*, birth place of Fernando Cortez, conqueror of Mexico, at *Truxillo*, of Pizarro, conqueror of Peru.

(e.) *In the Guadalquivir Basin.*—*Cádiz* (60,000), an old seaport in the Island of Leon; *Xeres* (52,000), whence are exported (*Xeres*) sherry wines; *Seville* (129,000), once the Gothic and afterwards the Moorish capital; *Cordova*, a famous city under the Moors. North of the Sierra Nevada, *Granada* (74,000), the last stronghold of the Moors, contains the fortified palace of the Alhambra, a noble specimen of Saracenic architecture.

(f.) *On the South and East Coasts.*—*Malaga* (113,000), *Almeria*, and *Alicante*, export towns for fruit; *Cartagena* (54,000), formerly an arsenal; *Murcia* (91,000) and *Valencia* (138,000), with extensive silk trade; *Barcelona* (231,000), a strongly fortified commercial and manufacturing town; and the seaport of *Tarragona*.



LEANING TOWER OF SAN FELIPE CHURCH, SARAGOSA.

*Leaning Tower of San Felipe Church, Saragosa.* *Seville* (129,000), once the Gothic and afterwards the Moorish capital; *Cordova*, a famous city under the Moors. North of the Sierra Nevada, *Granada* (74,000), the last stronghold of the Moors, contains the fortified palace of the Alhambra, a noble specimen of Saracenic architecture.

(g.) *In the Ebro Basin.*—*Saragossa* (81,000), celebrated for its resistance to the French in 1808 and 1809, and for its warrior maiden, the heroine of the siege, contains a famous leaning tower like that of Pisa in Italy. *Pampeluna*, a fortress; and *Vittoria*, the scene of one of Wellington's victories.

**10. The Balearic Isles** lie east of Spain. They are *Ivisa*, *Majorca*, *Minorca*, *Formentera*, and *Cabrera*. *Palma*, in *Majorca*, is the capital. *Mahon*, in *Minorca*, has a fine harbor. The islands are healthy, and their soil fertile.

**The Canary Isles** (anc. *Insulae Fortunatae*) lie west of Africa. The chief are *Palma*, *Ferro*, *Gomera*, *Teneriffe*, *Canary*, *Fuerteventura*, and *Lanzarote*. *Palma*, in *Canary*, is the capital. *Santa Cruz*, in *Teneriffe*, is the chief port.

**11. Colonies.**—Of the former numerous Spanish colonies, chiefly in South America there only remain *Cuba*, *Porto Rico*, and *Pinar*, in the West Indies; *Ceuta* and five other small settlements in the north of Africa; and part of the *Canary Islands*, the *Carolinas* and *Palaoi*, and of the *Ladrones*, in the Pacific Ocean.

**12. Gibraltar.**—See British Dependencies in Europe, page 88.

**13. Andorra.**—This small republic, independent since A.D. 700, lies in three wild valleys in the Pyrenees. The people, about 18,000 in number, are chiefly engaged in mining, rearing cattle, and occasionally in smuggling.

**Chief Town.**—*Andorra*. Population, 2000.

## REPUBLIC OF FRANCE.

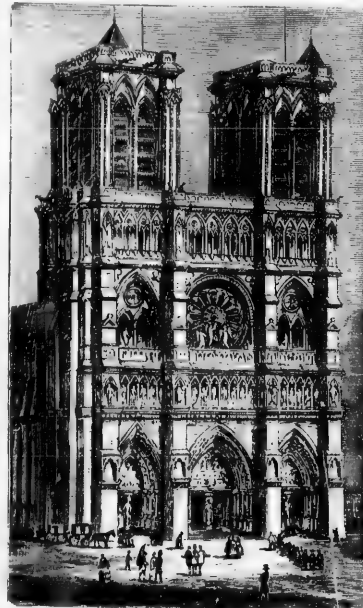
From *Frank*, Frisian people, Teutonic tribes who conquered France in the fifth century. Size, equal to a square of 451 miles.

**1. Noted for.**—France is noted for the military character of its people; its wines and brandy; and its extensive manufacture of silks, clocks, bronzes, and fancy articles.

**2. Boundaries.**—France is bounded on the north by the English Channel and Belgium; on the east by Germany, Switzerland, and Italy; on the south by the Mediterranean Sea and Spain; and on the west by the Bay of Biscay.

**3. Physical features.**—It is mountainous in the south-eastern and southern portions, and undulating in the north and the north-west. The Pyrenees Mountains separate France from Spain; the Alps divide it from Italy, and the Jura from Switzerland. From the Jura the Vosges range extends north-east, and west of the Rhone River are the Cevennes and Auvergne Mountains.

The surface is divided into four river basins: (1.) The Seine basin; (2.) The Loire; (3.) The Garonne; and (4.) The Rhone basin.



NOTRE DAME OF PARIS.



GATHERING CORK.

**4. Climate and Products.**—France is a land of corn, wine, and oil. Wheat, flax, sugar-beet, and other hardy plants flourish at the north; the more tender grape vine, in central France; and the oil olive, mulberry, and various tropical plants at the south. Bees and silk worms are extensively reared, and cork trees grow in the south. The chief minerals are iron, coal, and salt.

**5. The Inhabitants** are a mixed race of Celts, Goths, and Franks, in which the Celtic preponderates. Near the Rhine, the people are chiefly of Germanic stock. Brittany derived its name from fugitives from Great Britain. The inhabitants of the Eastern Pyrenees are still Spanish or Basque.



THE GRAPE VINE.





**6. Travelling Facilities.**—The public roads are generally good. Railways connect the interior with the most important towns on the coast and frontier. There are about eighty-six canals in various parts of France.

**7. Manufactures.**—In the extent and variety of her manufactures, France ranks next to Great Britain; but in the beauty of her silk fabrics, she holds the first place in the world.

**8. Manufacturing Centres.**—*Lyons*, at the south-east, is the great centre of silk manufacture; *Paris*, of jewelry, gloves, and fancy articles; and various towns farther north, of linen, cotton, and lace.

**9. Civil Divisions.**—France, formerly divided into thirty-four provinces, is now, with Corsica, subdivided into eighty-nine departments, deriving their names from rivers, mountains, or other natural features of the district. Corsica belongs geographically to Italy, but politically to France. It is 110 miles long, and 53 miles wide. The west coast has numerous bays, while the east coast is almost unbroken. A mountain chain, rich in minerals, runs through the centre of the island.

**10. Chief Towns.**—(a.) In the North-East Basin.—*Valenciennes*, famous for its laces, and *Arras*, for its tapestry, are situated on the Scheldt and its tributaries. *Dunkirk* is a seaport at the extreme north of France.



CHERBOURG AND ITS BREAKWATER.

(b.) In the English Channel Basin.—*Calais*, on the coast, opposite Dover; *Lille* (163,000) is a strongly fortified city; *Boulogne* has important fisheries; *Dieppe* is a watering place; *St. Malo* is the place from which Jacques Cartier, the discoverer of Canada, sailed in 1534; *Cherbourg* is a strongly fortified naval station.

On the Somme.—*Abbeville*: near it is *Crecy*, noted for Edward III.'s victory in 1346.

On the Seine.—*Havre* (92,000), one of the principal commercial ports; *Rouen* (105,000), where William the Conqueror died and Richard Cœur de Lion was buried, has an extensive cotton trade.

*Paris* (1,989,000), the capital of France, 111 miles from the mouth of the Seine, is the second city in Europe for extent and importance. Its principal manufactures are fancy articles and jewelry. It is celebrated for the number and elegance of its public buildings, and for its scientific and literary institutions. Near Paris is *Versailles*, noted for its fountains and gardens, and for its palace, built by Louis XIV., but now converted into the houses of legislature.

(c.) On the Atlantic and Bay of Biscay Coasts.—*Brest*, *Rocheport*, and *Rochelle* are naval stations.

In the Basin of the Loire.—*Nantes* (122,000), with extensive shipbuilding and foreign trade, celebrated for an edict in favor of the Protestants, issued by Henri IV. in 1598, and revoked by Louis XIV. in 1685; *Orleans*, noted for its cloth manufactures, and for its siege, in 1428, by the English, which was raised by Joan of Arc; *St. Etienne* (126,000) is in the centre of one of the most valuable coal fields of France.

Near the Vienne.—*Poitiers* (on the Clain), where, in 1356, the Black Prince took King John of France prisoner. *Limoges* (on the Vienne) has manufactures of iron and porcelain.

On the Garonne.—*Bordeaux* (215,000) the second seaport of France, is noted for its export of wine; *Toulouse* (132,000) has a large transit trade.

South of the Adour is *Pau*, the birthplace, in 1553, of the celebrated Henri IV. of France, and, in 1763, of Bernadotte, afterwards King of Sweden.

(d.) On the Mediterranean Coast.—*Toulon* is the naval station for the French Mediterranean fleet; *Marseilles* (319,000) is the greatest seaport in France.

West of the Mouth of the Rhone are *Montpellier*; and *Nîmes*, with many Roman remains.

On or near the Rhone.—*Avignon* was for seventy years the residence of the Popes; *Lyons* (343,000), the second city in France, has extensive manufactures, and was the birthplace of Jussieu the botanist, and Jacquard the inventor of the loom which bears his name. *Nice* has a salubrious climate.

(e.) In the Saône and Rhone Basin.—*Dijon* is the centre of the Burgundy wine trade. *Besançon*, on the Doubs, is noted for its clocks and watches; *Grenoble*, on the Isère, contains a statue of the Chevalier Bayard. In *Savoie* is *Chambery*, the capital.

(f.) *Ajaccio*, the capital of Corsica, was the birthplace of Napoleon I.

## II. Colonies and Protected Countries:—

In Africa.—*Algeria*; *Senegal Settlements*; *Ivory Coast* and *Gabon River*; *St. Marie*; *Nossi-Bé* group; *Mayotte*, and *Bourbon*.

In Asia.—*Chandernagore*, *Yanaon*, *Pondicherry*, and *Karikal*, on the east coast of Hindostan; *Mahé*, on the west coast; *Cochin China*, and the Protectorate of *Cambodia*, in Further India.

In America.—*Martinique*, *Guadeloupe*, *St. Bartholomew*, and other islands in the West Indies. *St. Pierre* and *Miquelon*, fishing stations off Newfoundland. *French Guiana*, or *Cayenne*, in the north-east of South America.

In Oceania, the *Marquesas Islands*, *New Caledonia*, and the *Loyalty Islands*; and the Protectorate of *Tahiti*, *Low Archipelago*, *Gambier*, and other islands.

## KINGDOM OF BELGIUM.

From *Belgæ*, an ancient tribe. Size, equal to a square of 107 miles.

**1. Noted For.**—Belgium is noted for its iron manufactures and for the remarkable industry of its people.

**2. Boundaries.**—This small kingdom is bounded on the north by Holland; on the east by Germany; on the south by France; and on the west by the North Sea.

**3. Physical Features.**—Its surface is nearly level; being part of the great plain which extends eastward from North-Western France. The coasts are low, requiring dykes, as in Denmark and Holland, to keep out the sea. The principal rivers are the Scheldt and the Maas, or Meuse.

**4. Soil and Climate.**—The soil, though not fertile, has, by industry and skill, been rendered productive. The climate is cool and moist in the west and the south-east, but is drier inland.

**5. The Products** are grain, hemp, flax, hops, and tobacco. The Flemish horses are famous. In the basin of the Maas and other rivers, coal, iron, and other minerals are abundant.

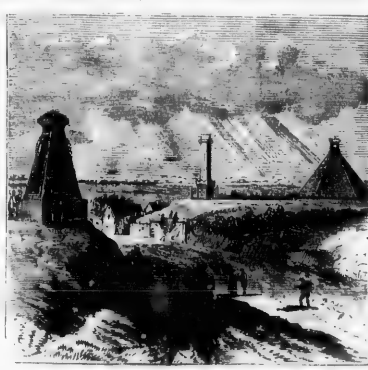
**6. Inhabitants.**—The Belgian people are made up of two distinct stocks, viz.: (1.) the Flemings, natives of the district of Flanders, lying between Holland, Belgium, and France, who are of German origin, and (2.) Walloons, or mixed Celts, who are descendants of the ancient Belgæ.

**7. Travelling Facilities.**—Belgium has excellent roads, and numerous canals and railroads.

**8. Manufactures.**—The manufactures are confined chiefly to the coal districts. Laces, linens, carpets, and machinery are among the most important.

**9. Civil Divisions.**—Belgium is divided into nine provinces.

**10. Chief Cities.**—(a.) On the Coast.—*Ostend* is the principal seaport; *Bruges* (45,000), an old commercial town, is now noted for its lace manufactures.



MONUMENTS ON THE BATTLEFIELD OF WATERLOO.

(d.) On the Maas.—*Namur* and *Liege* (120,000) are noted for their metal manufactures; and *Verviers* for fine cloth.

(b.) On the Scheldt.—*Antwerp* (160,000), famous for its cathedral, Flemish paintings, and its fortifications; *Ghent* (Gand) (114,000), built on 26 islands, birthplace of Charles V. and of John of Gaunt, noted for its European treaties; *Fontenoy*, a famous battlefield; *Tournay*, noted for its Brussels carpets; *Mons*, for coal and iron.

(c.) In the Interior.—*Brussels* (391,000), the capital, noted for its laces, carriages, and book publishing, is near the battlefields of Waterloo and Ramillies; *Mechlin*, or, in French, *Malines*, a railway centre, is noted for its lace.

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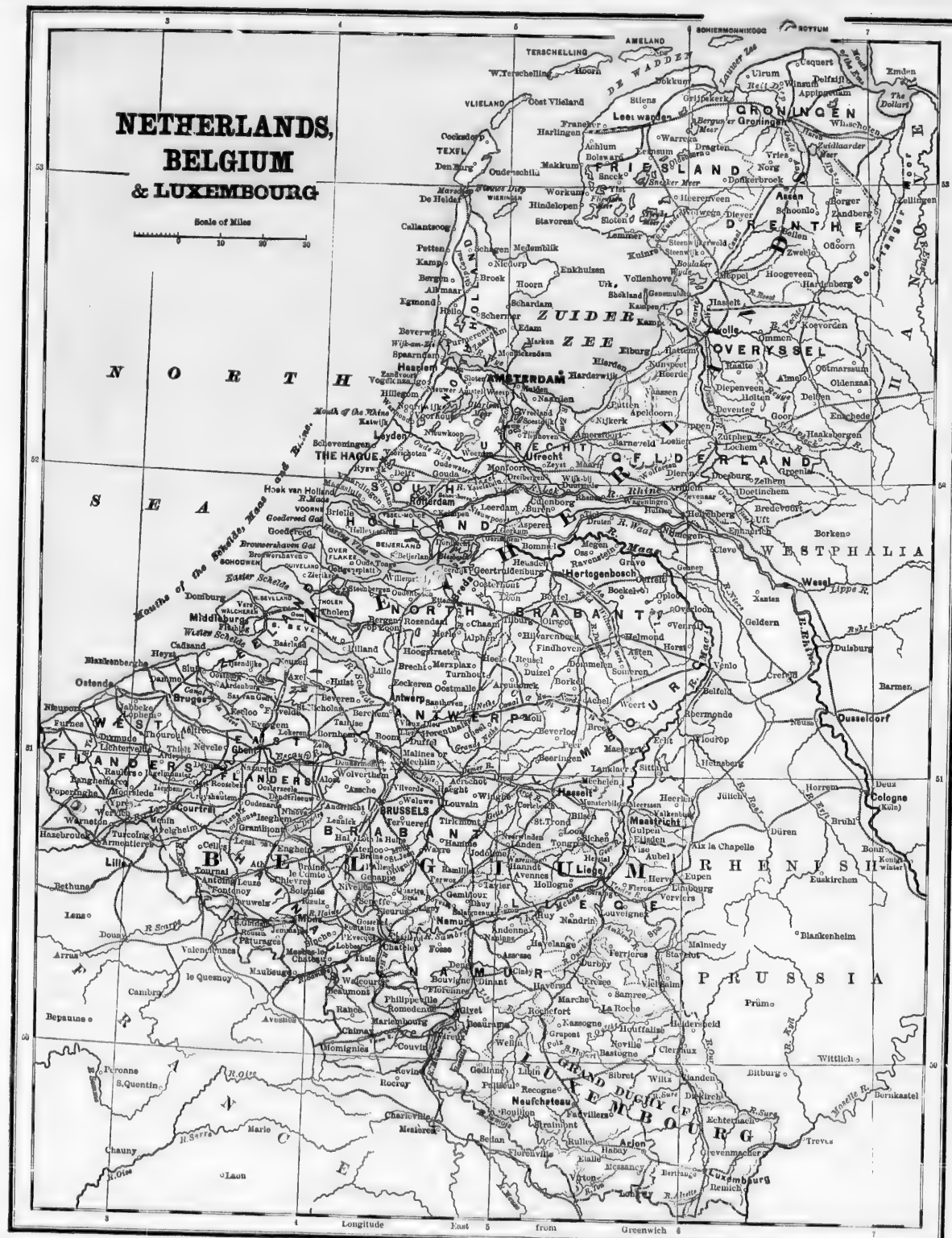
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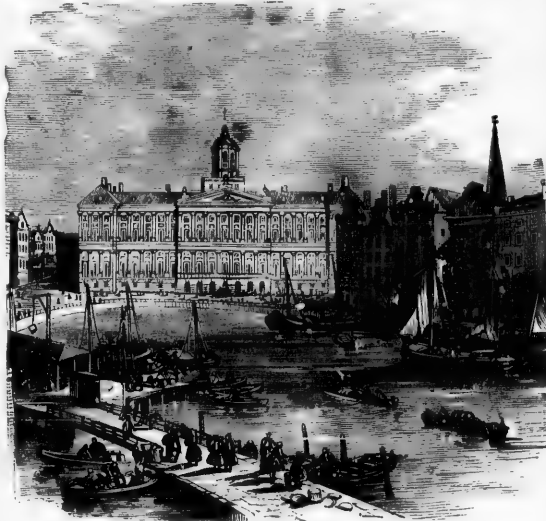
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## KINGDOM OF HOLLAND.

The name Holland or the *fen*, from *ollant*, marshy ground, was originally the name of a province, which has been extended to the whole country. Holland is also called the Netherlands, and Low Countries. Size, equal to a square of 113 miles.



AMSTERDAM.

1. **Noted For.**—Holland, or the Netherlands, is noted for its sea-embankments and canals.

2. **Boundaries.**—This Kingdom is bounded on the north and west, by the North Sea; on the south, by Belgium; and on the east, by Germany.

3. **Physical Features.**—The surface is nearly flat, and is intersected by numerous canals. It is below the level of high tides; but it is protected by natural sand-banks, and by artificial dykes or embankments, constructed chiefly of earth and clay. The principal rivers are the Scheldt, the Maas, the Rhine, and the Waal, which form a delta. The chief inlet is the Zuider Zee, or Southern Sea, which is enclosed by a chain of islands.

4. **Soil and Climate.**—The soil at the south is fertile. The climate is humid, but the winters are generally severe. The east is dry and healthy.

5. **The Products.**—are chiefly agricultural. Dairy husbandry is brought to great perfection.

6. **The Inhabitants** are chiefly Dutch, and belong to the Teutonic stock. Jews are numerous.

7. **Travelling Facilities.**—Canals are in Holland what common roads are elsewhere, and they form a net-work over the kingdom. Railways connect the chief cities with the capital.

8. **Exports.**—Linens, leather, delf, gin, butter, cheese, and cattle.

9. **Civil Divisions.**—Holland is divided into twelve provinces, including Limburg and Luxembourg.

10. **Chief Cities.**—On or near the Coast.—**Amsterdam** (302,000), the capital, south of the Zuider Zee, noted for its shipbuilding, commerce, and money exchanges, is built upon piles, and is intersected by numerous canals, crossed by 250 bridges; **Haarlem**, three miles from the German Ocean, is famous for its botanical nurseries, and for the St. Bavon organ; **Hoorn**, the birthplace of Tasman, the discoverer of Tasmania and New Zealand, and of Schouten, who discovered and first doubled Cape Horn, and called it after his birthplace; **Saardam**, where Peter the Great was a shipcarpenter; and **Camperdown**, noted for a British naval victory. From **Delft**, near Rotterdam, we derive the word *delf*, the name of a kind of earthenware.

On the Rhine.—**Leyden**, noted for its noble defence in 1573 against the Spaniards, in honor of which its university was founded; **Utrecht**, with woollen manufactures and a university, and noted for a treaty signed here, in 1713, between England and France.

On the Maas.—**Bois-le-Duc**, a fortified town; **Dort**, noted for its Ecclesiastical Synod, held in 1618; **Rotterdam** (143,000), with large commerce, the birthplace of Erasmus; **The Hague** (108,000), where the king resides, the birthplace of Huygens the astronomer; and **Maastricht**, with celebrated caverns, has an extensive trade.

At the North are **Lewwarden**, containing a king's palace; and **Groningen**, a university.

To the South.—**Luxemburg**, capital of a duchy, with immense fortifications, dismantled in 1867, when the duchy was declared neutral territory.

11. **The Colonial Possessions** of Holland are *Java*, *Celebes*, *Moluccas*, and parts of *Sumatra*, *Borneo*, *West Papua* or *New Guinea*, and other islands, in Oceania; some ports on the coast of *Guinea*, in Africa; *Dutch Guinea* or *Surinam*, in South America; and several islands in the West Indies.

## KINGDOM OF DENMARK.

So called from *Dane* and *march*, a boundary. Size, 121 square miles.



1. **Noted For.**—Denmark is noted for its peninsular form, and for having been the seat of the ancient warlike Danes.

2. **Boundaries.**—This kingdom is bounded on the north by the Skagerrack, a gulf of the North Sea; on the east by the Cattegat, the Sound, and the Baltic; on the south by Germany; and on the west by the North Sea, which the Danes call the Western Ocean.

3. **Civil Divisions.**—Denmark is divided into five provinces, viz.: 1. Jutland; 2. Seeland and Moen; 3. Funen and Langeland; 4. Laaland and Falster; 5. Bornholm.

4. **Physical Features.**—The surface to the north of Jutland is low and flat, and covered with sand and small lakes. More than a third part of Denmark consists of islands, the most important of which are Funen, Zealand, and Laaland. The principal straits are the Sound, the Great Belt, and the Little Belt. The Cattegat and Skager Rack (the crooked strait of Skager, or the Skawe) are a prolonged arm of the sea stretching from the North Sea to Zealand and Funen.

5. **Soil and Products.**—Except at the north, the soil is generally fertile. The climate is humid. Pasturage is good, and is the chief source of wealth. Water birds are numerous, and furnish feathers for export. Game is abundant. The streams and fords abound in valuable fish, as cod, herring, and salmon. The fisheries form an essential branch of national industry. Coal is found on one of the islands, and peat is plentiful, but there is little timber.

6. **Travelling Facilities.**—The fords, or inlets, make almost every part of Denmark accessible to the sea.

7. **Inhabitants.**—Jutland, or the northern part of the Peninsula, was the land of the Jutes.

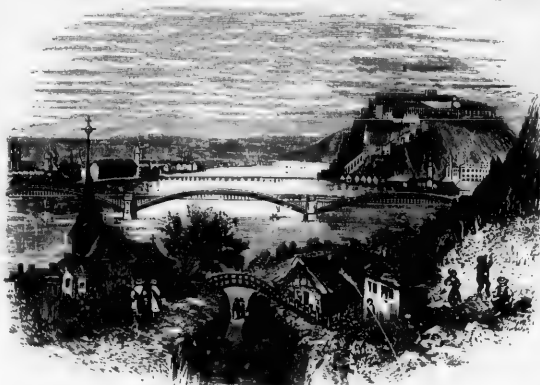
8. **Chief Cities.**—**Copenhagen**, or **Merchant's Haven** (250,000), the capital, on the islands of Zealand and Amager, is a strongly fortified port, and so are those of Rendsborg, Glüstadt and Fredericia. It is noted for its university and public buildings. **Elsinore** is at the entrance to the Sound, and near it is the Kronberg Castle the principal fortress. **Roeskilde**, in Zealand, was the former capital. **Odense**, in Funen, was founded by King Odin.

9. **The Colonial Possessions** of Denmark are *Iceland*; the *Faroe Isles* (Faar-oen or sheep islands), between Iceland and Norway; *Greenland*; *Santa Cruz*, *St. Thomas*, and *St. John*, in the West Indies; and some of the *Nicobar Isles*.



## EMPIRE OF GERMANY.

From the Celtic *ger*, war, and *man*, man; or from the Persian *Erman*, a country beyond the Oxus River, whence the Germans are supposed to have come. Size, equal to a square of 456 miles.



EHRENBREITSTEIN, ON THE RHINE, OPPOSITE COBLENTZ.

**1. Boundaries.**—Germany is bounded on the north, by the North Sea, Denmark, and the Baltic Sea; on the east, by Russia and Austria; on the south, by Austria and Switzerland; and on the west, by France, Belgium, and Holland.

**2. Divisions.**—Since 1871, the German Empire, which was established during the Franco Prussian war, has consisted of four Kingdoms, six Grand Duchies, five Duchies, seven Principalities, three Free Towns, and the Reichsland of Alsace-Lorraine.

**3. Government.**—The government of the Empire is an hereditary monarchy, with a parliament of two houses. The upper house, called the Bundesrath (Federal Council), consists of fifty-nine members, annually appointed by the governments of the various states. The lower house, called the Reichstag (Diet of the Realm), consists of three hundred and ninety-seven members, elected by universal suffrage and ballot for three years. **Berlin** is the capital.

(4.) The four kingdoms are Prussia, Saxony, Bavaria, and Wurttemberg.

## KINGDOM OF PRUSSIA.

From Prusi, name of a Gothic tribe settled between the Vistula and the Niemen. Size, equal to a square of 370 miles.



THE KING'S PALACE, BERLIN.

**1. Noted For.**—Prussia is noted for its porcelain, which rivals that of Sévres and Dresden, and for its iron manufactures.

**2. Boundaries.**—Prussia is bounded on the north by the North Sea, Denmark, and the Baltic Sea; on the east by Russia; on the south by Austria and several of the German States; and on the west by France, Belgium, and Holland.

**3. Civil Divisions.**—It is divided into twelve provinces, besides the small Principality of Hohenzollern.

**4. Physical Features.**—From the interior, the surface inclines to the north, as shown by the direction of the rivers. Along the Baltic, the coast is generally flat. Eastern Prussia is covered with forests, and dotted over with lakes. In the mountainous part of the south, the scenery is picturesque. Rhenish Prussia lies in the Rhine valley. The chief rivers which flow through Prussia to the north are the Vistula, the Oder, the Elbe, and the Rhine, with some of their tributaries. The Oder is almost entirely in Prussia.

**5. Soil and Climate.**—Along the rivers the soil is fertile; in other parts it is sandy and not so productive. The wine district is in the rich Rhine valley. The climate near the Baltic is changeable and foggy, but in the interior of the country it is warm and agreeable.

**6. Products.**—The chief products are grain, hemp, flax, hops, tobacco, sugar beet, and grapes. Sheep, hogs, and bees are extensively reared. Amber is abundant on the shores of the Baltic. Mines of coal, lead, iron, zinc, and copper are worked.

**7. Manufactures and Exports.**—The leading manufactures in the mining districts of Rhenish Prussia and Silesia are linen and woollen goods. Among the chief exports are grain, wine, timber, wool, and linen.

**8. Travelling Facilities.**—Railways connect Berlin, the capital, with the principal cities of continental Europe. There are few canals, but the rivers afford commercial facilities.

**9. The Inhabitants** are chiefly Germans; but in parts of Eastern Prussia they are of Slavonic origin. Jews are numerous in the cities and towns. One-half of the inhabitants are engaged in agricultural pursuits. Education is generally diffused, and there are ten universities in the kingdom.

**10. Chief Cities.**—At the North-East.—*Memel*, with an extensive grain and timber trade.

On the *Pregel*.—*Königsberg* (King's mountain) (123,000), the former capital, built on piles; *Friedland*, scene of a French victory over the Russians.

On the *Vistula*.—*Danzig* (98,000), the chief seat of foreign commerce; *Thorn*, the birthplace of the celebrated astronomer Copernicus.

On the *Oder*.—*Stettin* (81,000), an important grain seaport; *Frankfort-on-the-Oder*, with cloth manufactures; *Breslau* (239,000), with woollen and linen manufactures.

On the *Wartha*.—*Posen*, the capital of ancient Poland.

On the *Elbe*.—*Magdeburg* (123,000) is well fortified, and carries on an extensive trade in woollens and porcelain.

On the *Saal* and *Tributaries*.—*Halle*, the birthplace of Handel the musical composer, is the seat of a university; *Eisleben*, the birthplace of Luther and the place where he died; *Lützen*, where Gustavus Adolphus, King of Sweden, fell in battle; and *Erfurt*, where Luther was once a monk.

On the *Navel* and the *Spree*.—*Brandenburg*, the seat of the founders of the kingdom; *Potsdam*, with the country palace of the king.

**Berlin** (1,045,000) is the capital of Prussia, and the chief seat of her literary and other institutions. It has also extensive manufactures. This handsome city is surrounded by a wall, and entered by sixteen gates. The principal street is divided into five avenues by four rows of trees, and on either side are the palaces and other public buildings. Berlin is noted for its royal library; and for its university, founded in 1809.

In the *Rhine Valley*.—*Frankfort-on-the-Maine* (103,000) is the centre of the inland trade, banking, and mercantile transactions of Central Europe. Goethe was born here. *Düsseldorf* is the mart for cotton and silk manufactures. *Cologne* (from Colonia Agrippina, a Roman Colony, having been planted there by desire of Agrippina, Nero's mother, who was born there) (135,000) is noted for its perfumed water, and for its fine Gothic cathedral. *Barmen* (87,000) is a manufacturing town. *Bonn* was the birthplace of Beethoven, the musical composer. *Coblenz* is at the mouth of the Moselle. *Treves*, the oldest city in Germany, has many Roman antiquities. *Aix la Chapelle*, noted for its hot springs, was the residence of the Emperor Charlemagne. *Münster*, where the Peace of Westphalia was concluded in 1648; and *Minden*, the scene of the defeat of the French, by the Anglo-Hanoverians, in 1759.

In the *Weser Valley*.—At *Hanover* (107,000) the astronomer Sir Wm. Herschel was born. *Göttingen* has a university. *Osnabrück* is noted for its linen of that name. *Emden*, at the outlet of the Ems, is the chief seaport.

## ALSACE-LORRAINE.

Size, equal to a square of 75 miles.

**1. Reichsland**, or the Imperial Territory of Alsace-Lorraine, was wrested from France in 1871. Capital, *Strasbourg* (94,000), a fortified city, on the Ill, famed for its cathedral, the spire of which is 446 feet high. *Metz* (46,000), on the Moselle, is strongly fortified. Here the French army, under Bazaine, capitulated to the Germans in 1870. *Mühlhausen* (59,000) is an important manufacturing town.

**2. Boundaries.**—It is bounded on the north by the Rhine Palatinate, on the east by the Rhine, on the south by Switzerland, and on the west by the Vosges Mountains.

**3. Physical Features.**—The district possesses many natural attractions, and is one of the most fertile in Central Europe; there are several ranges of hills but not of great elevation. It is rich in minerals, copper, lead, iron, coal and rock salt being wrought with profit.

**4. Products.**—Corn, flax, tobacco, grapes, and various other fruits.

## KINGDOM OF SAXONY.

*Saxon*, a short swordsmen, the name of a celebrated early Teutonic tribe. Size, equal to a square of 70 miles.

**1. Noted For.**—Saxony, the centre of the book trade of Germany, is noted for being the smallest kingdom in Europe.

**2. Position.**—This compact little kingdom lies south of Prussia, and north of Bavaria and Bohemia.

**3. Physical Features.**—From the Bohemian Erz Gebirge (Ore Mountains) at the south, the surface of Saxony slopes northward to the great plain. It is rich in minerals, and its scenery is highly picturesque. The River Elbe and its tributaries flow through it.

**4. Products.**—Orchards, vineyards, and pasture lands abound. On the latter, the sheep which furnish the fine Saxony wool are reared. This wool and the products of numerous mines are the chief exports.

**5. Chief Cities.**—*Dresden* (107,000), the capital, situated on the Elbe, is noted for its public buildings, museum, and gallery of paintings; also for its china and porcelain. *Freiberg* is in the centre of the mining district. *Leipzig* (the Linden Town) (127,000), the German book mart, has a university. *Chemnitz* (78,000) is the principal seat of cotton-weaving in the kingdom. *Bautzen* is famous for its manufactures of cloth and cotton stockings.

## KINGDOM OF BAVARIA.

Originally called *Boiaria*, from the ancient *Beli*, who settled here 600 B.C. Size, equal to a square of 171 miles.

1. **Noted For.**—Bavaria (Germ. *Bayern*) is noted for its transit trade between Austria, Italy, and Northern Germany.
2. **Position.**—The chief part of Bavaria lies between Bohemia and Wurtemberg; and the remainder on the Rhine, east of Baden. It is bounded north by Hesse Cassel, Saxe Meiningen, Weimar, the principality of Reuss, and the Kingdom of Saxony.
3. **Physical Features.**—Mountains nearly enclose Bavaria at the south-east, north-east, and north-west, forming an extensive river basin for the Danube and the Main, a tributary of the Rhine, which here take their rise. These mountains range from 3000 to upwards of 10,000 feet in height. Rhenish Bavaria is traversed by mountains dividing it into two parts. The climate is mild and salubrious, the soil is very fertile and rich in mineral wealth.
4. **The Products** are grain, flax, timber, and fruits. The grape flourishes in the south. Timber, grain, beer, and wines, wool, leather, hops, and fruits are the chief exports. The lakes and rivers abound in fish.
5. **Chief Cities.**—Munich (Germ. *München*) (199,000), the capital, on the Isar, is famous for its galleries of painting and sculpture, its library, its university, and its optical and mathematical instruments. Excepting Madrid, its position is more elevated than that of any city in Europe. Augsburg (57,000), on the Lech; Ratibon, on the Danube, the seat of the German Diet from 1662 until 1806; Speyer, or Spire, on the Rhine. Nuremberg (91,000), on the Pegnitz, is the great centre for the manufacture of German clocks and toys.

## KINGDOM OF WURTEMBERG.

Named from a leading Count of that title in the 11th century. Size, equal to a square of 88 miles.

1. **Noted For.**—Wurtemberg is noted for having been the chief theatre of war during the French Revolution of 1789-99.
2. **Position.**—This kingdom, formed by Napoleon I. in 1805, lies between Bavaria Proper and the Grand Duchy of Baden.
3. **Physical Features.**—Wurtemberg is traversed by a branch of the Alps, in which the Neckar, a Rhine tributary, takes its rise.
4. **Products.**—The soil being highly fertile, grain and fruits are abundant. Mines and mineral springs are numerous.
5. **Chief Cities.**—Stuttgart (107,000), the capital, near the Neckar, is noted for its book trade, its palace, and its library; Ulm is at the head of navigation on the Danube.

## THE SIX GRAND DUCHIES.



HEIDELBERG, ON THE NECKAR.

1. **Baden** (from *bad*, German for bath), the principal Grand Duchy in Germany, lies east of the Rhine, and is highly fertile and picturesque. Its chief industries are ribbons and cotton fabrics, toys, trinkets, and wooden clocks. The chief articles of export are wine and timber. The chief cities are *Constance*, on Lake Constance; *Freiburg* and *Heidelberg*, each with a university; *Carlsruhe* (43,000), the capital, with streets diverging from the palace; *Mannheim* (16,000), a commercial city at the junction of the Neckar and the Rhine.
2. **Hesse** lies north of Baden. It is a populous agricultural country. *Darmstadt* (44,000) is the capital. *Worms*, an ancient city, is situated on the River Rhine. *Mayence* (56,000) is the largest town.
3. **Oldenburg**, south of the North Sea, nearly divides Hanover in two. *Oldenburg*, the capital, is situated on a tributary of the Weser.
4. **Mecklenburg Schwerin** and 5. **Mecklenburg Strelitz** lie south of the Baltic Sea, between Prussia and Holstein. The surface is flat, but the soil is rich and fertile. *Schwerin* (28,000) is the capital of the former, and *New Strelitz* of the latter.
6. **Saxe Weimar** lies west of Saxony. *Weimar*, the capital, is distinguished for its literary and scientific institutions.

## THE FIVE DUCHIES.



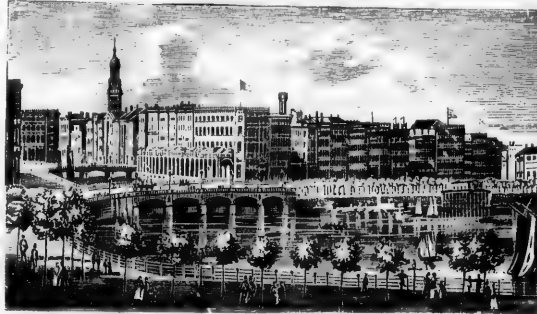
THE DUCAL PALACE, GOTHÄ, (PATERNAL HOME OF THE LATE PRINCE ALBERT).

1. **Brunswick** consists of five isolated portions of territory lying south of Hanover. It is noted for forests. *Brunswick* (66,000), the capital, is a very old place, and is said to have been first walled by Bruno, Duke of Ostfalia, about the ninth century. Its industry consists chiefly in manufactures of woollen and linen, beet-sugar, tobacco, *papier-mâché*, and lackered wares.
  2. **Anhalt** is situated in the Elbe valley. It ranks among the most fertile of the States of Germany, and produces large quantities of grain, tobacco, flax, hops, and fruits, especially grapes; and is noted for its fine breeds of cattle and sheep. Its principal export trade is in the raw products. *Dessau* on the Mulde, and *Bernburg* on the Saal, are the chief towns.
- The Saxon Duchies are those of the *Saxes*, viz.:
3. **Altenburg**, 4. **Coburg-Gotha**, and 5. **Meiningen**. They lie between Prussian Saxony and Bavaria. *Saxe Coburg Gotha* was the paternal home of the late Prince Albert of England.

## THE SEVEN PRINCIPALITIES.

- Waldeck* lies north and west of Hesse Cassel, and east of Lippe Detmold.
- Lippe Detmold* lies between Hesse Cassel, Hanover, Waldeck, and Prussia.
- Schwartzburg Rudelstadt* lies south of Saxe Weimar, and north of the Thuringian Forest range.
- Schwartzburg Sondershausen* is imbedded in Prussia, north of Saxe Weimar.
- Reuss Greiz* and *Reuss Schleiz*.—The first lies on the south-west of Saxony; the second on the Frankenwald spur of the Erz Gebirge.
- Lippe Schaumburg* lies between the cities of Hanover and Minden, on the east bank of the Weser.

## FREE CITIES.



HAMBURG.

1. **Hamburg** (348,000), is the most important commercial city of Germany, and is the capital of a small republic of the same name. It is situated in a pleasant district between the Elbe and Alster, about 75 miles from the German Ocean, and it is surrounded by a deep canal, 120 feet wide, communicating with the Elbe. It ranks as the greatest emporium of trade on the Continent, and next to London has the largest money-exchange transactions in the world. It lies south of Denmark, and includes a territory of 157 square miles. In a small district belonging to Hamburg, near the mouth of the Elbe, is the port of *Cuxhaven*.
2. **Lubeck** (45,000), north-east of Hamburg, has an extensive transit trade. It has a territory of 127 square miles. Total population 57,000.
3. **Bremen** (111,000), on the Weser, near the German Ocean, is next to Hamburg in commercial importance. It has a territory of 106 square miles. Total population 143,000.
4. **Hamburg, Lubeck, and Bremen** are called Hanse Towns, from the commercial league or Hansa, formed in the thirteenth century for mutual protection.

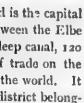


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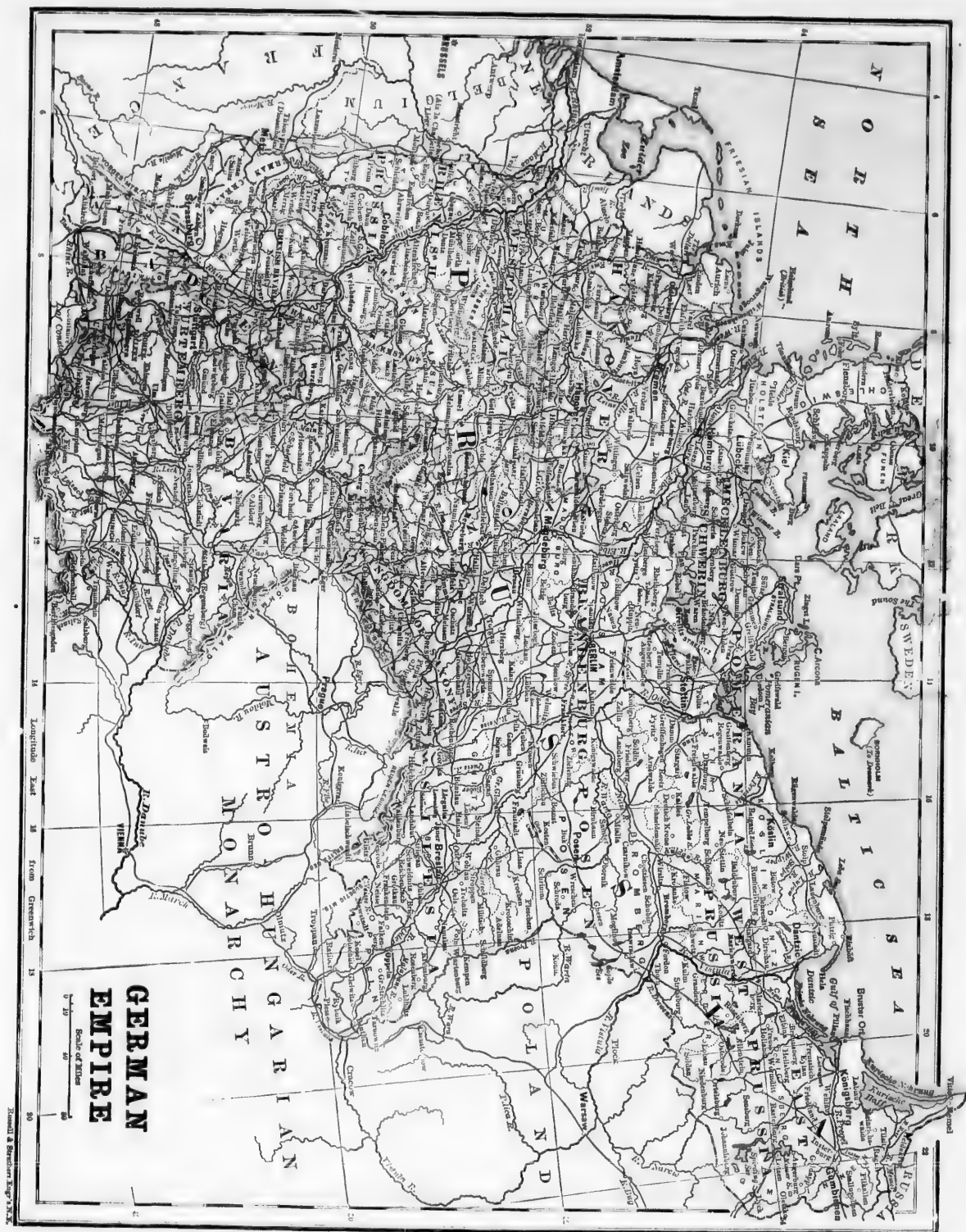
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## AUSTRO-HUNGARIAN MONARCHY.

Austria from the German *Osterreich*, or eastern kingdom of Charlemagne's dominions. Size, equal to a square of 491 miles.



VIENNA.

1. **Noted For.**—Austria is noted for its central position in Europe, and its few seaports and river outlets. Its mineral wealth is not surpassed in any European country, and it is further noted for its springs and rock salt, and for its precious stones, such as the ruby, sapphire, topaz, opal, garnet, amethyst, and jasper.

2. **Boundaries.**—Austria is bounded on the north, by Germany and Russia; on the east, by Russia and Roumania; on the south, by Roumania, Servia, Turkey, the Adriatic Sea, and Italy; and on the west, by Italy, Switzerland, and Germany.

3. **Physical Features.**—The principal river is the Danube and its tributaries, which are enclosed by the great mountain ranges of the Alps at the west, the mountains of Bohemia at the north, and the Carpathians stretching from Silesia at the north, to the western and southern boundary of Transylvania; thus forming a vast basin for this noble stream. The Elbe, the Oder, the Vistula, and the Dniester Rivers rise at the north of the empire. The chief inlets are the Gulfs of Trieste, Quarnero, and Cattaro.

4. **Soil and Climate.**—In the great river basins, the soil is highly fertile. The climate is cool and clear in the north, and moist and warm in the south, but in Central Austria more temperate or variable, according to the elevation of the mountains.

5. **Chief Products.**—Wine, oil, grain, flax, hemp, rice, olives, vines, hops, tobacco, medicinal plants, and fruits are among the chief products. In mineral riches, Austria surpasses nearly all the other countries of Europe. It yields all the metals except platinum. Coal is found in most of the provinces, and there are extensive beds of salt in Galicia and Salzburg.

6. **The Inhabitants** are made up of several races. The principal are the Slavonic, German, Italian, Hungarian or Magyars (an Asiatic race), Jews, and Gypsies.

7. **Travelling Facilities.**—Good roads have been constructed over upwards of sixty mountain passes of the empire. From Italy a macadamized road of more than 1120 miles in length extends across the empire to the eastern part of Galicia. There are numerous railways which connect the capital with the various cities of the empire, but the Danube and its navigable tributaries form the great commercial highway of the nation.

8. **Manufactures, &c.**—The manufactures are leather, silk, wool, and cotton, Bohemian glass, flax, and paper; but agricultural pursuits and mining are the chief occupations.

9. **Divisions.**—Since 1867, the Austro-Hungarian monarchy has been divided into eighteen provinces, grouped into two divisions, viz.: the *Cis-Leithan*, comprising fourteen provinces, officially called Austria, and the *Trans-Leithan*, comprising four provinces, officially called Hungary.

10. **The German, or Cis-Leithan Provinces** include (1, 2.) *Lower and Upper Austria*, (3.) *Salzburg*, (4.) *Styria*, and (5.) *Carinthia*, in the middle; (6.) *Bohemia*, (7.) *Moravia*, and (8.) *Silesia* in the north; (9.) *Tyrol* and *Vorarlberg*, in the west; (10.) *Carniola*, in the south; (11, 12.) *Coast Land* and *Dalmatia*, on the Adriatic Sea; (13, 14.) *Galicia* and *Bukowina*, at the north-east of Hungary. Bohemia is a fertile plain, enclosed by mountains. It is much celebrated for its glass works, as well as for various branches of mining industry. Tyrol is picturesque and mountainous. Carinthia, Carniola, and Dalmatia are also mountainous. Galicia was taken from Poland in 1772. Cattle and grain are its chief exports.

11. **Chief Cities.**—(a.) *Vienna* (Ger. *Wien*), (1,020,000), on the Danube in Lower Austria, is the capital of Austria and the centre of its trade. It is one of the largest and handsomest cities in Europe. Its university is renowned for its medical school.

(b.) *Upper Austria*.—*Linz*, the capital, is a strongly fortified city on the Danube.

(c.) *Salzburg*.—*Salzburg*, on the Salzach, a tributary of the Inn, is the capital. In the neighborhood are great salt works.

(d.) *Styria* (Ger. *Steiermark*).—*Graz* (86,000), the capital, has a university, and is situated midway between Vienna and Trieste.

(e.) *Carinthia* (*Kärnten*), on the Upper Drave. Capital, *Klagenfurt*.

(f.) *Bohemia* (*Böhmen*).—*Prague* (*Prag*), (190,000), the capital, on the Moldau, has a large trade, and a university founded in 1348.

(g.) *Moravia* (*Mähren*).—*Brunn* (74,000), the capital, is noted for its manufactures. Near it is *Austerlitz*, famous for Napoleon I's victory, in 1805, over the Austrians and Russians. *Olmutz*, the ancient capital of Moravia, is a strongly fortified town on the March.

(h.) *Silesia* (*Schlesien*).—*Troppau*, the capital, on the Oppa, is noted for its fortress, and for its linen and woollen manufactures.

(i.) *Tyrol* and *Vorarlberg*.—*Innsbruck*, the capital, on the Inn, manufactures silk, woollen, and cotton goods. It is the seat of a university. *Trent*, on the Adige, memorable for the great ecclesiastical council held here, 1545-1563.

(j.) *Carniola*.—*Ljubljana*, the capital, in the valley of the Save, has manufactures of porcelain, silk, and linen. *Idria*, 25 miles to the westward, is noted for its quicksilver mines.

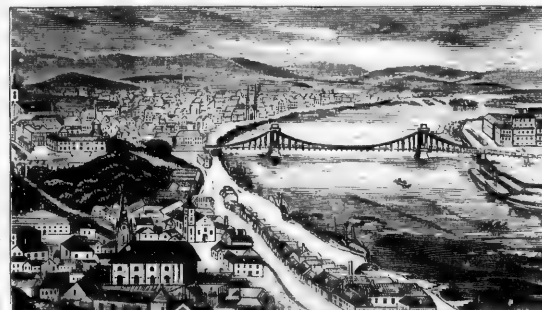
(k.) *Coast Land*.—*Trieste* (109,000), the capital, on the Adriatic, is the chief seaport of Austria. *Pola* is the chief naval station of Austria. It is an ancient town and has fine Roman remains.

(l.) *Dalmatia*.—*Zara*, the capital, carries on a coasting trade. *Spalato*, south-east of Zara, is mostly built out of the ruins of one of the palaces of the Roman emperor Diocletian.

(m.) *Galicia*.—*Lemberg* (87,000), the capital, is the seat of a university. *Brody* has considerable trade in grain and cattle. *Cracow* (Pol. *Krakau*) (50,000), on the Vistula, the former capital of Poland, possesses a university, and is noted for its cathedral, in which the Polish kings were crowned and buried. *Wieliczka* and *Bochnia*, to the south-east of Cracow, are noted for their extensive salt mines.

(n.) *Bukowina*.—*Czernowitz*, the capital, on the Pruth, has manufactures of clocks and hardware.

12. **The Hungarian or Trans-Leithan Provinces** include (1.) *Hungary*; (2.) *Transylvania*, south-east of Hungary; (3.) *Slavonia* and *Croatia*, including the Military frontier, along the south of Hungary, and (4.) *Fiume*, a small territory on the Gulf of Quarnero. Hungary is a beautifully diversified table-land enclosed by mountains, and is noted for its wine, tobacco, salt mines, horses, hogs, and black cattle. Transylvania is a mountainous region; and rock salt is its chief product.



BUDA-PESTH, CAPITAL OF HUNGARY.

13. **Chief Cities.**—On the Danube.—*Presburg* (47,000), the old capital, and crowning place for the Emperor as King of Hungary; *Comorn*, defended in 1849 by the Hungarians against the Austrians; *Buda-Pesth* (270,000), divided by the river, form one city, the political and commercial capital of Hungary; *Maria Theresienstadt* (56,000), named after the great empress, Maria Theresa; *Peterwardein*, so named from Peter the Hermit.

On the Theiss. —*Tokay*, celebrated for its wines, and *Segedin* (70,000). Another large city is *Debrecin* south-east of Tokay. *Klausenburg*, and *Hermannstadt*, are chief towns of Transylvania. *Agram* is the capital of Slavonia and Croatia.

14. *Bosnia* and *Herzegovina* are nominally a portion of the Turkish Empire, but under the Treaty of Berlin, 1878, are occupied and administered by Austro-Hungary.



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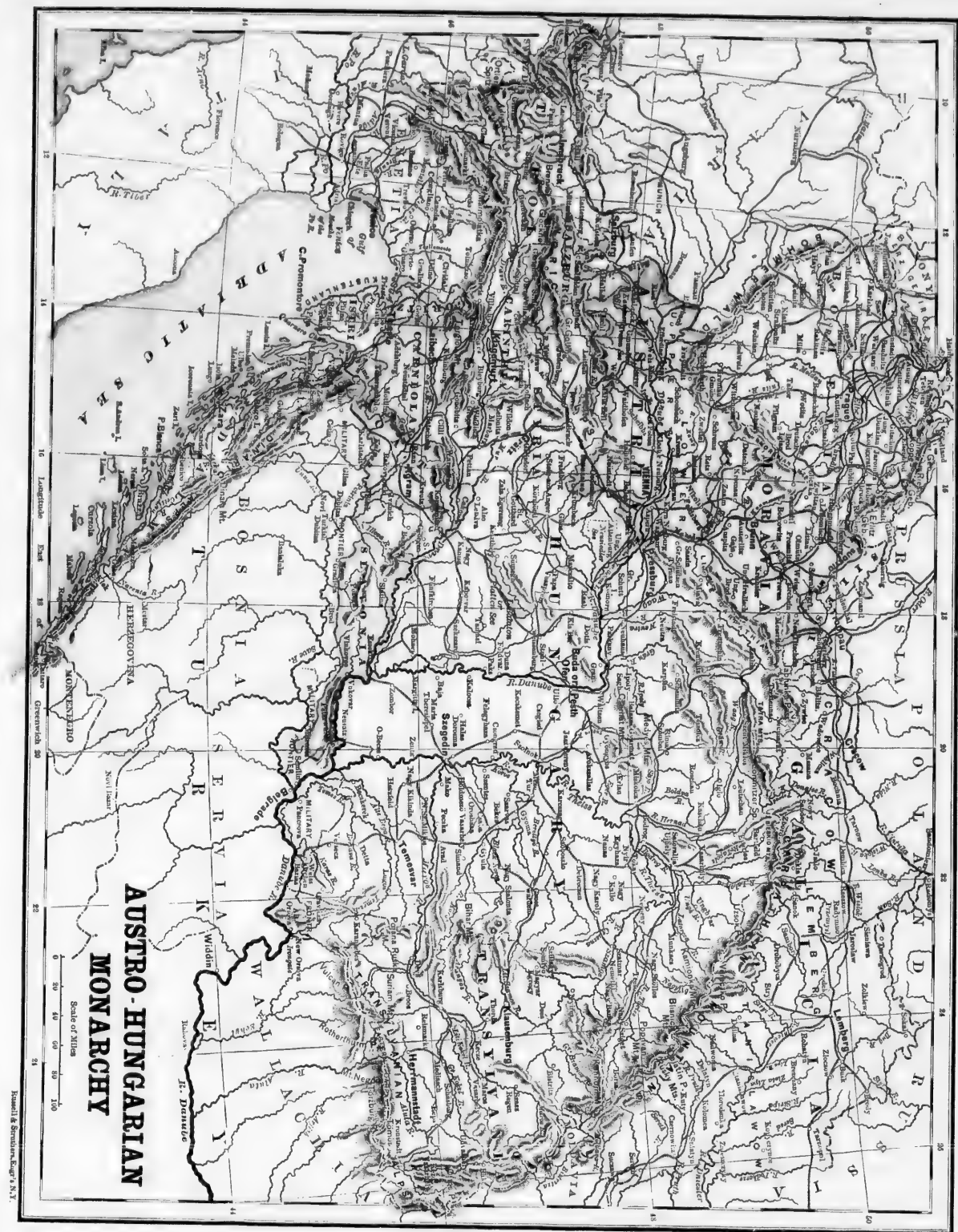
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Revised & Enlarged Map of 1911

## REPUBLIC OF SWITZERLAND.

From *Schyns*, near Lake Zurich; *Helvetia*, from *Helvetii*, a nation of Gaul. Size, equal to a square of 1400, 20,000 Austrians; and for being the birthplace of William Tell.



MONT BLANC.

**1. Noted For.**—Switzerland is noted for being the most mountainous country in Europe; for its picturesque scenery; for totally routing, in 1315, with a little band of 1400, 20,000 Austrians; and for being the birthplace of William Tell.

**2. Boundaries.**—Switzerland is bounded on the north by Germany; on the east by Austria; on the south by Italy; and on the west by France.

**3. Its Physical Features** are remarkable. They embrace mountains, valleys, waterfalls, streams, lakes, and glaciers. The scenery is highly picturesque. From the centre, Mount St. Gothard, and the Lepontine and Pennine Alps, extend southwest, the Bernese Alps west, and the Rhätian Alps east. The glaciers of ice, formed along the snow line of the mountains, and the avalanches of snow, sometimes prove very destructive. The chief rivers, all rising near Mount St. Gothard, are the Rhone, the Ticino, the Rhine, the Aar, and the Inn. The largest lakes are Constance or Boden See, Geneva or Leman, Lucerne, Zurich, and Neuchâtel.

**4. Soil and Climate.**—In the valleys the soil is excellent. The climate varies with the elevation: it is cold on the mountains, temperate on the plains, and hot in the valleys.

**5. Products, &c.**—Flax and hemp are extensively grown, but the country is best adapted for pasturage. Fruit, grain, and the vine grow in the valleys. The ibex, or rock goat, and the chamois are abundant. Mineral springs are numerous.

**6. Natural Curiosities.**—The Falls of Schaffhausen on the Rhine, and the Cataract of Staubbach (Dust-fall), near Lauterbrunnen, are celebrated.

**7. Inhabitants.**—The inhabitants are chiefly of Teutonic and Celtic origin. They are industrious and patriotic. According to their geographical position, they speak the French, the German, or the Italian language. Three-fifths of the population are Protestant, and the remainder Roman Catholic. Education is generally diffused.

**8. The Travelling Facilities** are good. Roads have been made across the mountains. About 1500 miles of railway had been constructed up to 1878; and steamboats ply on the principal lakes.

**9. Manufactures and Exports.**—The manufacture of watches, musical boxes, and jewelry forms a chief part of Swiss industry. These, with cattle, cheese, butter, silk stuffs, and ribbons, are the principal exports.

**10. Civil Divisions.**—There are twenty-two cantons, three of which are each divided into two, making twenty-five separate republics, united for general purposes. Their Legislature, consisting of deputies from the cantons, is called a Diet.

**11. Chief Cities.**—(a.) On the Aar.—*Berne* (37,000), the capital, where the Diet meets, is the seat of a university. Its arcades and fountains are numerous. *Neuchâtel*, *Lucerne*, *Sempach*, *Altorf*, and *Zurich*, at the foot of a beautiful lake, noted for its schools.

(b.) In the Rhine Basin.—*Basel* (45,000) is noted for its university, ribbon manufacture, and extensive trade with France, Germany, &c. *Erasmus* is buried here. *St. Gall* has manufactures.

(c.) In the Rhone Basin.—*Geneva* (66,000) on the Rhone, at the foot of the Lake of Geneva, is the most populous city in Switzerland. It is noted for watchmaking. At *Lausanne* (27,000), Edward Gibbon, the English historian, wrote his "Decline and Fall of the Roman Empire."

## KINGDOM OF ITALY.

From *Italia*, a chief of the *Enotri*; called *Hesperia*, Western, by the Greeks. Size equal to a square of 318 miles.



ROME.

**1. Noted For.**—Italy is noted for its ancient greatness; its paintings and statuary; and for its being the residence of the Pope, or head of the Roman Catholic Church throughout the world.

**2. Boundaries.**—Italy, a boot-shaped peninsula, is bounded on the north by Switzerland and Austria; on the east by Austria and the Adriatic Sea; on the south by the Mediterranean Sea; and on the west by the Mediterranean Sea and France.

**3. Physical Features.**—The mountains of Italy are the Alps and the Apennines. The snow-capped Alps form a gigantic curve at the north. The Apennines, a chain running from north to south, form the water parting of the peninsula, and naturally divide it into two parts. The third natural division of Italy is the plain lying south of the Alps. The principal gulfs are Trieste, Taranto, Genoa, and the Bay of Naples. The chief river is the Po, with the lakes Maggoire, Lugano, Como, and Garda; and the principal one on the west slope of the Apennines is the Tiber.

**4. Climate.**—The clear sky and salubrious climate of Italy are justly celebrated; the exceptions are at the north, where it is cold, and changes are sudden. Malaria prevails at the north-west coast and in the Pontine marshes near Rome.

**5. Soil and Products.**—The fertile soil produces wheat, rice, cotton, olives, grapes, &c. In the south, the sugar-cane, the orange, the fig, and the mulberry are cultivated. Lead, iron, alabaster, lava, and marble abound. Sponges and corals are found on the coasts of Sicily.

**6. Inhabitants.**—The Italians are a mixed race, made up of Latins, Greeks, Lombards, Gauls, and Goths, who intruded on the original inhabitants.

**7. Travelling Facilities.**—In northern Italy and in Tuscany the roads are good; but not so in central and southern Italy. Mules are used for the purpose of transport over the mountain passes; but the principal cities in the north are connected by railroads.

**8. Manufactures and Exports.**—Silk, straw hats, artificial flowers, and musical instruments. The chief exports include these, and kid and lamb skins, olive oil, fruits, coral, and perfumery.

**9. The Italian Islands** are *Sicily*, the *Lipari Islands*, *Sardinia*, and *Elba*. They lie to the south and west of Italy.

(a.) *Sicily* is the largest island in the Mediterranean Sea, and is separated from Italy by the Strait of Messina. On the east side of the island is Mount Etna, a celebrated volcano, 10,874 feet high. The upper part is covered with scoræ and snow; the middle, with forests of pine and oak; and the lower or lava region, with towns and vineyards.

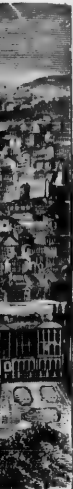
(b.) The *Lipari Islands* north of Sicily, are volcanic. The volcano of Stromboli, in the island of that name, is called the lighthouse of the Mediterranean. Lipari supplies large quantities of pumice stone.

(c.) *Sardinia* is 152 miles long, by 66 broad. The coasts are bold and rocky, and the interior mountainous. The plains are noted for their beauty and fertility; but there are several stony, sterile districts.

(d.) *Elba* lies off the coast of Tuscany. It is noted for the first Napoleon's enforced retirement there in 1814. The island is entirely mountainous.

**10. The Government** is a free constitutional monarchy. The town in the Principality of *Monaco*, near Nice, is under the protection of Italy; the remainder of the Principality was purchased by France in 1861.

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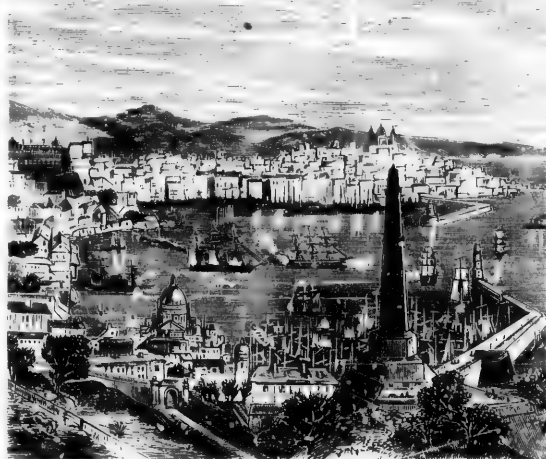
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**II. Civil Divisions.**—For administrative purposes, Italy is divided into 69 provinces, named after the principal town in each. The larger divisions, which include these, are called *compartimenti*, and are fifteen in number, namely: 1. Piedmont and Liguria; 2. Sardinia; 3. Lombardy; 4. Venetia; 5. Emilia; 6. Tuscany; 7. Marches; 8. Umbria; 9. Latium; 10. Abruzzo and Molise; 11. Campagna; 12. Apulia; 13. Basilicata; 14. Calabria; and 15. Sicily.



GENOA, THE BIRTHPLACE OF COLUMBUS.

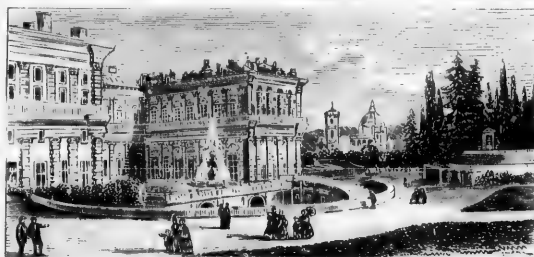
**13. Chief Cities.**—(1.) Piedmont and Liguria, and (2.) Sardinia.—Turin (214,000), formerly the capital of the Kingdom of Sardinia, has extensive silk manufactures; Genoa (163,000), an important seaport, was the birthplace of Columbus, and formerly the capital of a republic, and is celebrated for its silks and velvets; Alessandria (58,000) has manufactures of cloth and linen. Cagliari (33,000), the capital of Sardinia, is a place of considerable trade.



VENICE.

(3.) Lombardy and (4.) Venetia.—Milan (262,000) is a place of great trade; and is noted for its magnificent cathedral, built of white marble. Venice (125,000) was long the capital of a celebrated republic. It stands on 82 islets, connected by 360 bridges. There are 150 canals, which are traversed by light gondolas. The grand canal divides the city in two. The principal buildings are the palace of the Doge (duke) and the church of St. Mark. Verona (66,000) is strongly fortified; and Padua (66,000) is the seat of a university.

(5.) Emilia.—Bologna (112,000) is distinguished for its ancient university, founded in 1110; Ferrara (75,000) is also the seat of a university; Ravenna (60,000) is an ancient and historic city, now decayed. It formerly stood on the sea-shore, but is now several miles inland. It contains the tomb of Dante. Modena (56,000) is the seat of a university; and so is Parma (42,000). Reggio (51,000) lies between Modena and Parma. Carrara is celebrated for its marble. The little town of San Marino is the capital of a nominally independent republic.



THE PALACE MUSEUM AT FLORENCE.

(6.) Tuscany, (7.) Marches, and (8.) Umbria.—Florence (168,000) was from 1864 to 1870 the capital of Italy. It has a cathedral and many other fine public buildings, and is celebrated for its splendid collections of paintings and sculptures. It was the head of a republic in the middle ages; and was the birthplace of Dante, Cimabue, the founder of modern painting, and Amerigo Vespucci. Leghorn (98,000) is an important seaport; Lucca (69,000) is the seat of a university; Pisa (50,000) is celebrated for its leaning tower, and as the birthplace of Galileo. Ancona (46,000) is a busy commercial town; and Perugia (40,000) is the seat of a university.

(9.) Latium or the Roman Territory. — Rome (234,000), the capital, occupies both sides of the Tiber, about sixteen miles above its mouth. It is perhaps the most famous city in the world, as having been the capital of the ancient Roman Empire, and the residence of the Pope, or supreme head of the Roman Catholic church



THE BASILICA OF ST. PETER, AND THE VATICAN, ROME.

throughout the world. It is noted for the architectural splendor of its churches, which number 364, the chief of which is St. Peter's, the most magnificent ecclesiastical structure in the world. It covers nearly five acres, and was erected at a cost of \$75,000,000. Adjacent to it is the Vatican Palace, the residence of the Pope, which contains more than 4000 apartments, a celebrated library, and a splendid museum of works of ancient and modern art. There are several other palaces; also a large number of colleges and other educational buildings; besides numerous convents and hospitals. The castle of St. Angelo is on the west bank of the Tiber. South of the city is the Capitoline Hill, with the ancient Forum, the Arch of Titus, the ancient Coliseum, and many other ruins of the city. The University of Rome is one of the oldest in Europe.

(10.) Abruzzo and Molise, and (11.) Campagna.—Chieti (24,000), a very ancient city, is well built and flourishing, and is the seat of an archbishopric.

Naples (451,000), the largest city in Italy, is beautifully situated on the north side of the Bay of Naples. It is a place of extensive trade. Ten miles from the city is Vesuvius, a volcano 3950 feet high. In the year 79 A.D. it overwhelmed the city of Herculaneum and Pompeii.

(12.) Apulia, (13.) Basilicata, and (14.) Calabria.—Bari (54,000) is a seaport on the Adriatic; Potenza (18,000) is the largest town in Basilicata; Reggio (17,000), the ancient Rhégium, has considerable local trade, and is noteworthy in connection with the visit of the Apostle Paul.

(15.) Sicily.—Palermo (232,000), the capital, has a university, and is the seat of an active commerce. It was taken by the Saracens in 1072. Messina (121,000) has a fine harbor, and is a place of great commercial importance. Catania (91,000) lies near the foot of Mount Etna, and has been frequently visited by earthquakes, but is nevertheless the seat of thriving silk manufactures. Syracuse (23,000) is built among the ruins of the ancient city of that name.



LEANING-TOWER, AND PART OF CATHEDRAL, PISA.





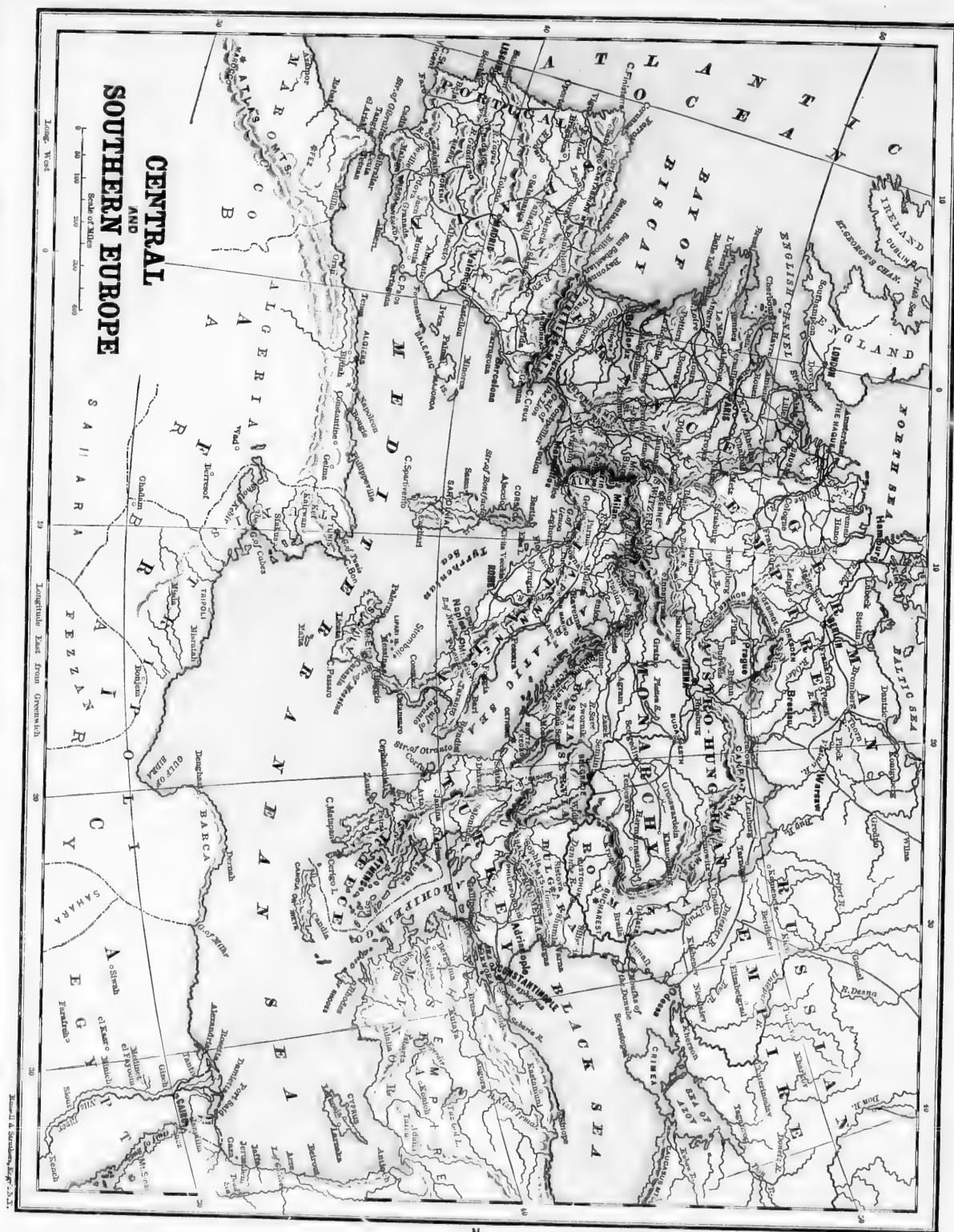
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**EMPIRE OF TURKEY (EUROPEAN).**

Founded from Asia Minor by a branch of the great Turkish family of Central Asia; also called *Ottoman Empire* from *Othman*, a noted leader. Size, equal to a square of 361 miles.



CONSTANTINOPLE.

**1. Noted For.**—European Turkey is noted in the ancient history of Greece, chiefly as Macedonia and Thrace; for having been the seat of the mediæval Eastern, Greek, or Byzantine Empire; and for being now the only Mohammedan Power in Europe.

**2. Boundaries.**—Turkey is bounded on the north by Austro-Hungary, Servia, and Roumania; on the east by the Black Sea; on the south by the Sea of Marmora, the Ægean, and Greece; and on the west, by the Mediterranean and Adriatic Seas, and Austro-Hungary.

**3. Physical Features of European Turkey.**—The Balkan Mountains form the water-shed dividing the rivers running north into the Danube, from those running south into the Ægean. The Dinaric Alps and the Pindus Mountains run north and south. The other parts of Turkey are chiefly undulating. The Danube is the principal river. The principal islands of Turkey are the beautiful *Crete*, or *Candia*; *Rhodes*, famed for its mercantile law of general average, and for its Colossus; *Scio*, noted for its beauty; *Patmos*, whither St. John was banished; and *Thasos*. Turkey possesses a seaboard on five seas, viz.: the Black Sea, the Sea of Marmora, the Ægean, the Ionian Sea, and the Adriatic.

The Sea of Marmora (anc. Propontis) lies between Turkey-in-Europe, and Turkey-in-Asia. Its area is 9768 square miles. Its name is derived from the celebrated marble island near its western extremity, the ancient Proconessus. It receives the waters of the Black Sea by the Straits of Constantinople (anc. Bosphorus), 20 miles long and from  $\frac{1}{2}$  to 2 miles wide, and transmits them to the Mediterranean by the Dardanelles or Hellespont, 40 miles long, and from 1 to 4 miles wide.

**4. The Soil** is generally fertile, but is not fully cultivated, the rearing of cattle and sheep being the chief occupation of the people.

**5. The Climate** is cold and changeable at the north; but, being sheltered, it is more agreeable at the south.

**6. Products.**—Tobacco, flax, and hemp are cultivated at the north; rice, cotton, and barley, in the central districts; opium, rhubarb, grapes, figs, olives, oranges, and other fruits, in the south. South of the Balkan range, roses are abundant, from which the celebrated attar (or otto) of roses is distilled. Fish abound in the rivers, and leeches in the marshes. Goats, bears, wolves, and jackals are very numerous. The principal minerals are iron, lead, copper, sulphur, salt, and alum.

**7. The Inhabitants** are Turks, Bulgars, Slavonians, Greeks, Armenians, and Jews.

**8. Travelling Facilities.**—Generally, the roads are suitable only for horses or mules. There are no canals, and less than 700 miles of railroad. The Danube is the great highway of commerce at the north, the Maritza and the Vardar at the south, and the Dria at the west.

**9. The Manufactures and Exports** of the empire are chiefly grain, carpets, silks, leather, valonia, opium, other drugs, and fruit.

**10. Divisions.**—The empire of Turkey is naturally divided into three parts, viz.: (1.) Turkey-in-Europe; (2.) Turkey-in-Asia; and (3.) Turkish Africa. Together they form the Ottoman Empire. Turkey-in-Europe now consists of Turkey proper, the provinces of Bosnia and Herzegovina (in the occupation of Austro-Hungary), the tributary autonomous principality of Bulgaria, and the tributary autonomous province of East Roumelia. Turkey proper itself is divided into four vilayets or provinces.

**11. Chief Cities.**—Constantinople (600,000), the capital of the empire, stands, like Rome, on seven hills, and on a tongue of land projecting into the Bosphorus, which forms an inlet known as the Golden Horn. The city, studded with towers and minarets, appears exceedingly beautiful as seen from the water; but it really consists of a number of narrow, winding, steep, and dirty streets. The houses are chiefly of wood, and are lighted from interior courts. The principal buildings are the Seraglio, or Imperial Palace, and a Mohammedan mosque, which was formerly the great church of St. Sophia. The city is named after Constantine the Great, who made it the capital of the Roman Empire.

At the south-west are *Rodosto* and *Gallipoli*, fortified seaports. *Adrianople* (61,000), on the Maritza, was the former Turkish capital.

In Macedonia is the seaport of *Salonica* (70,000), the ancient Thessalonica.

In Albania, *Yanina* and *Scutari* are large towns.

**THE TRIBUTARY PRINCIPALITY OF BULGARIA.**

Area, about 24,659 square miles; population, about 1,800,000. This principality was created by the Treaty of Berlin, 1878.

**12. The Bulgarians** are an Asiatic race, allied to the Turks and Finns; their language is a mixture of Turkish and Slavonian. The Prince of Bulgaria is elected by the people of the principality and confirmed by the Porte. The chief articles of export are grain and wool. *Sophia* (18,000) is the capital; *Virnova* (12,000), on the Juntra, was the ancient capital. The principality contains the famous fortresses, Widdin, Rustchuck, Silistria, Shumla, and Varna.

**13. The Province of East Roumelia.**—Area about 13,663 square miles; population, about 750,000. This Province was created by the Treaty of Berlin. About one-half of the population are Mohammedans, the rest are Bulgarians and Greeks, adherents of the Greek Church. The Governor General is appointed by the Porte, with the assent of the European powers, for a term of five years, and must be a Christian. The capital is *Philippolis* (28,000).



SEA OF MARMORA.

**THE PRINCIPALITY OF ROUMANIA.**

Settled by Roman colonists in the later period of the Empire; hence the name. Area, equal to a square of 222 miles.

**1. Boundaries.**—Roumania is bounded on the north by Austria and Russia; on the east by Russia and the Black Sea; on the south by Bulgaria; and on the west by Servia and Austria.

**2. Physical Features.**—It is for the most part a lowland plain, bounded on the north by the Carpathians, and on the south by the Danube. The soil is fertile and productive. The climate is variable and extreme, the summer heat and winter cold being intense.

**3. Products.**—The agricultural produce consists of grain, beans, and peas. Grapes and other fruits are abundant; but the wealth of the country consists chiefly of its cattle, horses, and sheep.

**4. Inhabitants.**—The people are mainly descended from the ancient Roman colonists, and they speak a language, the Wallachian, derived from and resembling the ancient Latin.

**5. Government.**—Roumania was formerly tributary to and a part of the Turkish Empire, but was made independent by the Treaty of Berlin, 1878. It is governed by an hereditary Prince, a Senate, and a Chamber of Deputies.

**6. Divisions.**—Roumania has three principal divisions: Moldavia, Wallachia, and the Dobruddcha.

**7. Chief Cities.**—Bucharest (178,000), the capital, on the Dombovitz, does an extensive trade; *Jassy* (90,000) is the chief town in Moldavia; *Galați* (80,000) is an important town near the mouth of the Danube.

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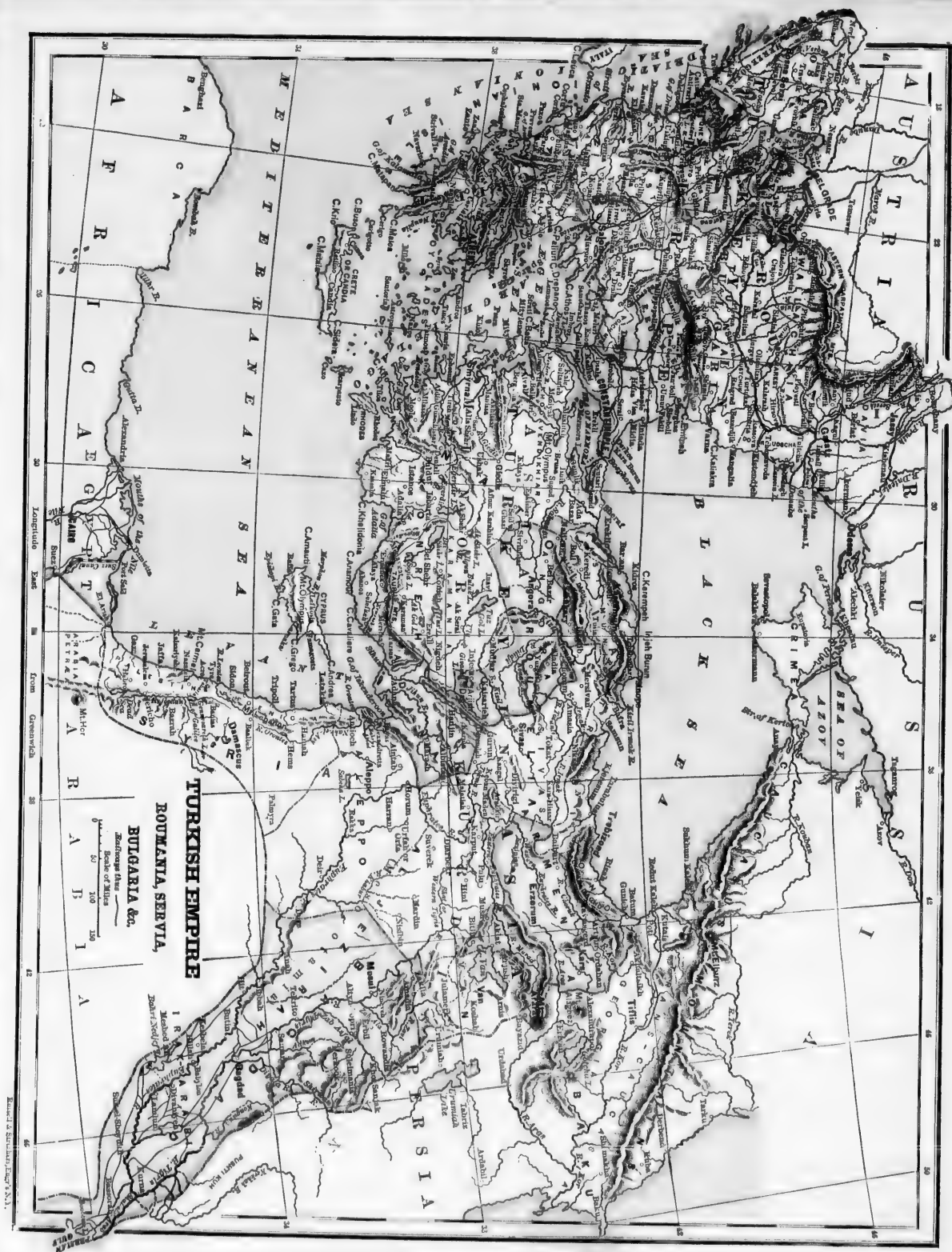
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## THE PRINCIPALITY OF SERVIA.

The name Servia is derived from the Serbs, a branch of the Slavonian race, who conquered the country about A. D. 638. Area, equal to a square of 137 miles.

- 1. Boundaries.**—Servia is bounded on the north by Austro-Hungary; on the east by Roumania and Bulgaria; and on the south and west by Turkey.
- 2. Physical Features and Products.**—The country is mountainous, with extensive forests and uncultivated heaths. Its principal exports are wood, cattle, pigs, and grain.
- 3. Inhabitants.**—The people, known as Serbs, belong to the Slavonian family, and speak a language allied to the Russian. They are almost wholly members of the Greek Church.
- 4. Government.**—Servia was formerly a tributary province of Turkey, but was made independent by the Treaty of Berlin. It is governed by an hereditary Prince, a Senate, and an elected National Assembly called the Skupchina.
- 5. Chief City.**—Belgrade (28,000), the capital, is the only important town.

## THE PRINCIPALITY OF MONTENEGRO.

Montenegro is the Italian name of the country; by the Turks it is called Kara-agh; and by the inhabitants themselves, Ternağora: all of which names mean Black Mountain, a designation derived from the forests which formerly covered the whole country, and which are still extensive.

Montenegro is a wild and mountainous country, of small size, lying on the east of the Adriatic Sea, between Bosnia and Albania. It was formerly a tributary province of Turkey, but by the Treaty of Berlin it was made independent and additional territory was given to it. Its area is now 3642 square miles, and its population 300,000. The Montenegrins belong to the Servian branch of the Slavonian race, and are distinguished for their savage bravery. In religion they adhere to the Greek Church. The chief products are maize, potatoes, and tobacco; the only manufactures are coarse woollens. The country is governed by an hereditary Prince, and an elective Senate of sixteen members. *Cettigne* or *Cettinji* (1400) is the capital.

## KINGDOM OF GREECE.

From *Græci*, an ancient tribe of Epirus. Size, equal to a square of 139 miles.

- 1. Noted For.**—Greece is noted for its ancient greatness.
- 2. Boundaries.**—This kingdom is bounded on the north by Turkey; on the east by the *Ægean* Sea; and on the south and west by the Mediterranean Sea.
- 3. Its Physical Features** are beautiful, being diversified by hill and valley. The mountains, though not lofty, are celebrated. The coasts are everywhere indented with bays and studded with islands. The rivers are noted only for their classical associations. Its mountains, of limestone formation, are almost destitute of metals, but furnish the finest marble for building and sculpture.
- 4. The Climate** is agreeable, the winter short, the sky generally clear, and the atmosphere dry.
- 5. The Chief Products** are grain, rice, cotton, honey, currants, figs, dates, pomegranates, citrons, and oranges. Bees are abundant, as are also sheep and goats.
- 6. The Inhabitants** are principally Greeks, Albanians, and Slavonians.
- 7. The Travelling Facilities** are not numerous. There are few roads in the interior, and no navigable rivers in the kingdom.
- 8. Manufactures and Exports.**—The manufactures are chiefly domestic; the exports are grain, honey, drugs, and dried fruits.
- 9. Divisions.**—Greece is divided into thirteen nomarchies; but its natural divisions are *Hellas*, north of the Gulf of Lepanto; the *Morea*, south of it; the Ionian Islands, and the Islands of the *Ægean*.
- 10. Chief Cities.**—*Athens* (69,000), the capital, near the Gulf of *Ægina*, was one of the most famous of ancient cities. Though now chiefly modern, it contains numerous remains of antiquity: of which the most celebrated are the Acropolis, or Citadel, and the Parthenon, or Temple of Minerva, near which is the Areopagus, or Mars Hill, so noted from St. Paul's visit. Athens is the birthplace of many illustrious men, among whom were Socrates, Plato, and Demosthenes. The other towns, viz.: *Lepanto*, *Patras*, *Navarino*, and *Nauplia*, are seaports.
- 11. The principal islands** off the coast are *Negropes*, *Hydra*, the *Cyclades*, and the *Ionian* group.

## THE UNITED KINGDOMS OF NORWAY AND SWEDEN.

Norway is derived from *nores*, north, and *rige* or *rike*, a kingdom; and Sweden from *Sveigie*, Kingdom of the Swiar, or *Swithed*, Burnt Country. Size, equal to a square of 542 miles.

- 1. Noted For.**—Norway and Sweden, the ancient Scandinavia, are noted for having been the seat of the ancient Northmen or Norsemen, who discovered Iceland, Greenland, and North America, and who also conquered and settled in that portion of France thereafter called Normandy.
- 2. Extent.**—Norway and Sweden extend from the Arctic Ocean to Denmark, and are about 1190 miles in length; their breadth varying from 230 to 490 miles.
- 3. Government.**—The two kingdoms are united under one king, but each country has a separate executive, parliament, constitution, and code of laws. The common affairs are decided upon in a Council of State composed of Swedes and Norwegians.

## NORWAY.

Size, equal to a square of 350 miles.

- 4. Boundaries.**—Norway is bounded on the north by the Arctic Ocean; on the east by Russia and Sweden; on the south by the Skagerrack; and on the west by the Atlantic and Arctic Oceans.
- 5. Physical Features.**—The surface is mountainous, and abounds in romantic scenery. The coast is deeply indented by numerous salt water inlets. Lakes are numerous. North Cape, in Mageroe Island, is the most northerly point of Europe.
- 6. Climate.**—At the north the climate is severe, but in the southern parts it is milder. Nearly three months of protracted daylight occur in the extreme north, while in the south the longest day is eighteen hours.
- 7. Products.**—Rye, barley, oats, and potatoes are the chief agricultural products. The seas, lakes, and rivers of the entire peninsula abound with fish. The Norwegian horses, a small but hardy breed, are extensively exported to Sweden and Great Britain. The principal sources of wealth are its iron and copper mines, forests, and fisheries.
- 8. Travelling Facilities.**—There are no canals in Norway; and only about 400 miles of railway. To facilitate communication, post-horse stations have been established at distances of from seven to ten miles.
- 9. Manufactures and Exports.**—The manufactures are chiefly for domestic and agricultural purposes. The leading exports are iron, silver, copper, fish, timber, bark, skins, cod-liver oil, turpentine, and horses.
- 10. Inhabitants.**—Norway is the most thinly peopled country in Europe, the population being only about 1,820,000. The inhabitants are industrious, brave, and hospitable.
- 11. Government.**—The executive government is vested in the sovereign; but all legislative power belongs to the Storting (the great court), or representative assembly.
- 12. Divisions.**—Norway is divided into six stifts, which comprise twenty provinces or amts.
- 13. Chief Towns.**—*Christiania* (113,000), the capital, situated at the south, is the chief seat of foreign trade. It has a university. The fiord, or bay, is dotted with numerous wooded islands, which present a beautiful appearance. *Drammen* exports ice. *Frederickshald*, a fortified seaport, exports timber and grain. Here Charles XII. of Sweden was killed in 1718. *Bergen* (40,000), at the east, exports large quantities of dried fish. *Drontheim*, further north, was formerly the capital of Norway.
- 14. The Lofoden Isles**, off the north-west coast, form the chief fishing stations. Near them is the Maelstrom (mill stream), a whirlpool formed by opposite tidal currents, which give it a whirling motion like a turning millstone. *Hammerfest*, on *Kvaloe* or *Whale Island*, is the most northerly town in Europe.

## SWEDEN.

Size, equal to a square of 413 miles.

- 15. Boundaries.**—Sweden is bounded on the north by Norway; on the east by Russia, the Gulf of Bothnia, and the Baltic; on the south by the Baltic; and on the west by the Cattegat and Norway.
- 16. Physical Features.**—The surface is generally level. About one-twelfth of the surface is covered with lakes and rivers, and one-fourth with forests. The principal rivers are Tornea and Dal. There are several beautiful falls in the rivers; the most noted of which are on the River Gotha.
- 17. Soil.**—The soil is not very fertile, and only a part of the middle and the south is under cultivation. The winter continues for about seven months. The mode of travelling is in horse or reindeer sledges.
- 18. The Products** are like those of Norway, but grain is more abundant. The interior of the country possesses mines of iron and copper, both of which articles are largely exported.
- 19. Inhabitants and Government.**—The inhabitants are thinly scattered, the population being only about 4,500,000. The government is a limited monarchy. The Diet or Parliament, of two chambers, is composed of representatives elected by the people.
- 20. The Travelling Facilities** are equal to those of Norway, with the addition of canals. The main roads near Stockholm are generally excellent. Steamboats ply on the principal lakes, and on such parts of the rivers as are navigable.
- 21. Manufactures and Exports.**—The manufactures are not extensive, except coarse linen. The exports are chiefly timber, grain, and the produce of the mines. Lobsters are exported in large quantities to England.
- 22. Divisions.**—Sweden is divided into three provinces, (Gothland, Svealand or Sweden Proper, and Norrland); and these into twenty-five *Laen* or Governments.
- 23. Cities and Towns.**—*Stockholm* (169,000), with its fine palace and public buildings, is the capital of the kingdom. It is the chief commercial emporium of Sweden, and its situation is extremely imposing. *Gottenburg* (74,000), at the mouth of the Gotha, and the second city in Sweden, largely exports iron and timber. *Carlskrona*, at the south, built on five small islands, is the chief station of the Swedish navy. *Fahlun* is noted for the extensive copper mines in its vicinity. *Upsala*, near Stockholm, is celebrated for its university.
- 24. Lapland** lies to the north-east of Sweden. It belongs partly to Norway, partly to Sweden, and partly to Russia; but, being a cold and barren country, the inhabitants are not subject to much control. Their individual herds of reindeer vary from 50 and 100 to 1000. The Laplanders live chiefly in tents, and are migratory in their habits, though some engage in agriculture.



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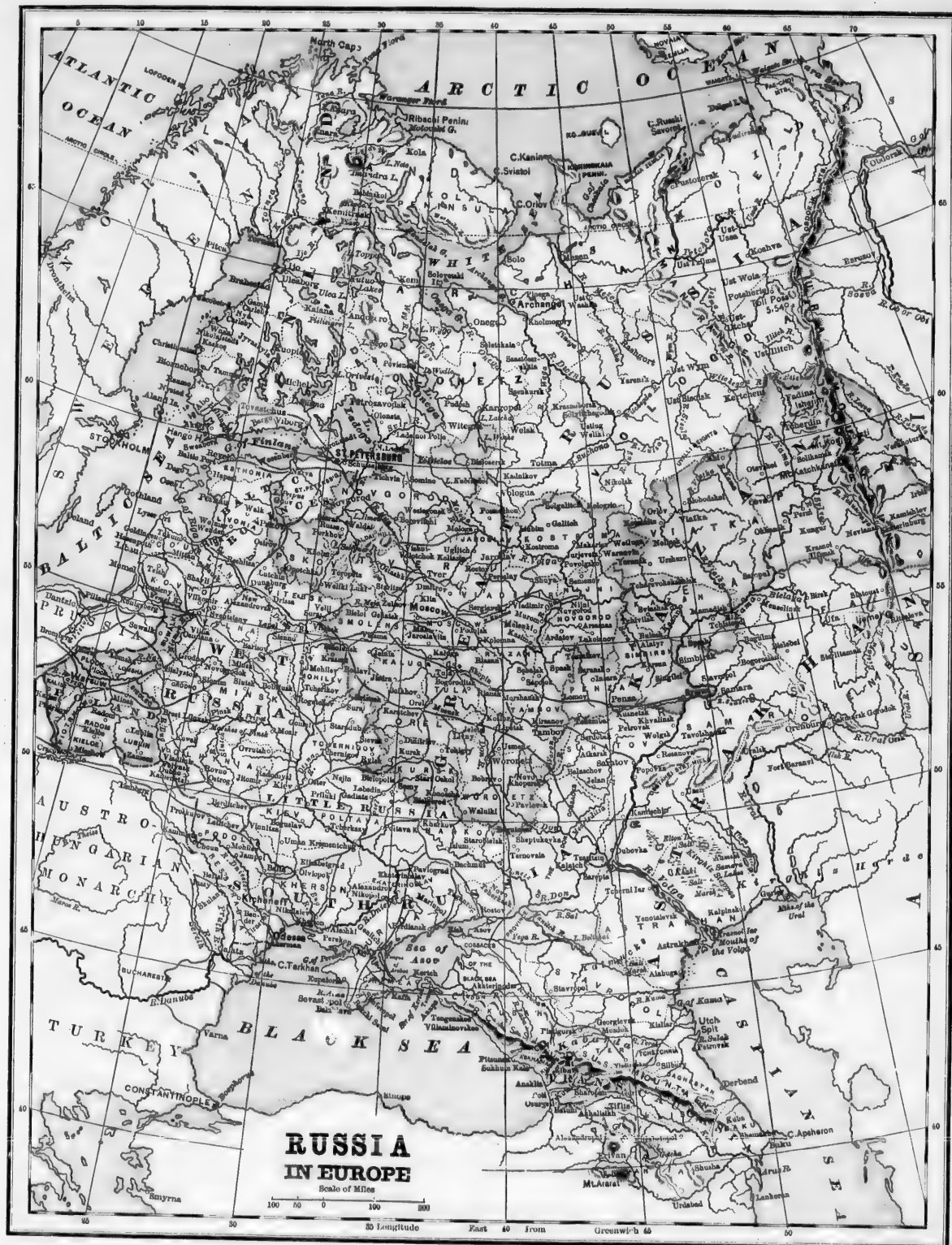
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## RUSSIA IN EUROPE.

From *Rossi*, strangers or foreigners, a Slavonic tribe. Size, equal to a square of 1476 miles.



ST. ISAAC'S SQUARE, AND THE SENATE HOUSE, ST. PETERSBURG.

**1. Noted For.**—Russia is noted for its compactness and its unbroken continuity in Europe and Asia, its mineral wealth, and the continued extension of its boundaries in Europe and Asia.

**2. Boundaries.**—Russia in Europe is bounded on the north by the Arctic Ocean; on the east by the Ural Mountains (*ural*, belt or boundary), the Ural River, and the Caspian Sea; on the south by the Caucasus Mountains, Black Sea, and Roumania; and on the west by Austria, Germany, and Sweden and Norway.

**3. Physical Features.**—Russia is chiefly a plain. Its only mountains in Europe are the Ural and Caucasus Ranges, dividing it from Asia. The steppes or plains in the south-east are barren, but the centre is generally fertile. From the Valdai Hills the country is divided into four great basins, which are drained by the following rivers: the Petchora and the Dwina, flowing into the Arctic Ocean; the numerous small rivers, flowing into the Baltic Sea; the Dniester, the Dnieper, and the Don, flowing into the Azov and Black Seas; and the Volga, with its numerous tributaries, and the Ural, flowing into the Caspian Sea. The slope of these rivers is very gradual. The largest lakes are Ladoga and Onega. The islands in the Arctic Ocean are Waigatz, Nova Zembla, and Spitzbergen.

**4. Climate.**—In the northern part of the empire there are scarcely more than two seasons, summer and winter; the heat of summer being soon followed by the frost and snow of winter. In the more temperate south, the seasons are shorter and more varied.

**5. Chief Products.**—The extensive forests furnish in abundance timber, pitch, potash, and turpentine. Fur-bearing animals are numerous along the Arctic Ocean. Corn, rye, and barley are among the principal products. Flax and hemp are grown in the west, and wheat and fruits in the centre and the south. Iron and other minerals are abundant, but the coal areas are very limited. The west side of the Ural Mountains yields copper; and the east side, gold, silver, and platinum.

**6. The Inhabitants** are chiefly of the Slavonic race, who were the ancient inhabitants of Russia, but the Finns inhabit the northern portions, and the Tartars the south-eastern parts; Jews and Armenians are also numerous. Serfdom, which long existed in Russia, was abolished in 1861. Agriculture and commerce are the chief pursuits.

**7. Travelling Facilities.**—By means of canals, the seas, lakes, and rivers of the empire are united into a complete system of internal navigation. A railway, 400 miles long, connects St. Petersburg and Moscow.

**8. Manufactures and Exports.**—The most important manufactures are leather, hempen fabrics, glass, and metal wares. The exports are tallow, hides, corn, iron, hemp, furs, and timber.

**9. The Government** is an absolute monarchy. The Greek is the established Church, and to it five-sixths of the population belong. The Czar (derived from Cæsar), or Emperor, is the head of both Church and State.

**10. Civil Divisions.**—Russia in Europe is divided into sixty-three governments, or provinces. These are grouped under the following nine larger divisions: 1. Great Russia; 2. Little Russia; 3. Eastern Russia; 4. South Russia; 5. Western Russia; 6. Baltic Provinces; 7. Poland; 8. Finland; and 9. Cis-Caucasia.

**11. Chief Cities.**—(a.) **In the Baltic Basin.**—**St. Petersburg** (670,000), the capital of Russia, so named after Peter the Great, who founded it in 1703, is situated on the left bank of the Neva, and on the adjoining islands. It has many fine buildings, and its manufactures and commerce are extensive. **Cronstadt** (47,000), its port is strongly fortified, and is the chief naval station. **Revel** and **Riga** (103,000) are also well fortified seaports, and have an extensive grain trade. **Abo** is between the gulfs of Bothnia and Finland. **Helsingfors**, the capital of Finland, is the seat of a university.

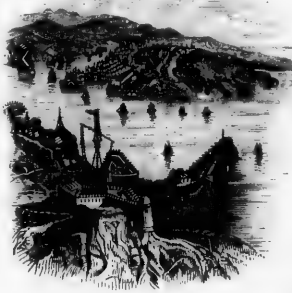
(b.) **On the White Sea.**—**Archangel** (26,000) is the oldest seaport in Russia.

(c.) **In the Dnieper Basin.**—**Kiev** (127,000), an early capital, is noted for its ancient Christian church. **Ekaterrinoslav** has woollen manufactures. **Kherson** (46,000) is a fortified town, with great trade. Near it is the tomb of Howard, the philanthropist. **Nicolaiev** (83,000), since Sebastopol was destroyed, has been the principal Black Sea naval station. **Kichenov** (102,000) is an important military station. **Kharkev** (101,000) holds extensive fairs, and is the seat of a university.

(d.) **On the Black Sea.**—**Odessa** (185,000) is the southern emporium of commerce. **Sebastopol**, or **Sevastopol**, was a strongly fortified naval station. It was taken in 1855 by the French and English, after a prolonged resistance. **Taganrog**, on the Sea of Azov, exports grain.

(e.) **In the Don Basin.**—**Tula** (58,000) is an inland town on the River Don.

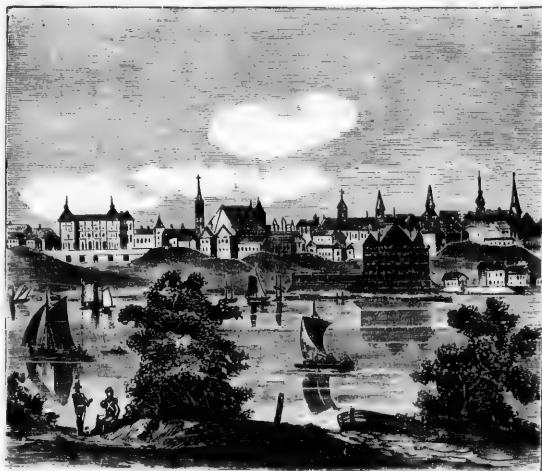
(f.) **In the Central Plateau.**—**Moscow** (602,000), the former capital, a semi-oriental city, is noted for having been set on fire, in 1812, by the Russians, to prevent its becoming the winter headquarters of the French army. It has been rebuilt, and has extensive trade, and manufactures cottons, woollens, and jewelry. The Kremlin (royal fortress), a collection of palaces and churches, form a famous group of buildings.



SEBASTOPOL, FROM THE NORTH SIDE OF STAR FORT.

(g.) **On the Volga.**—**Kasan** or **Kazan** (86,000), a university town, is a central place of trade for Siberia and Tartary. **Nijni Novgorod** is famous for its annual fair, which lasts from July to September, and is attended by a quarter of a million of people. **Saratov** (85,000) is noted for its trade. **Astrachan** has extensive fisheries, and manufactories of leather. Its principal trade is with towns in Asia.

**12. Caucasus, or Circassia**, lies on the northern and southern slopes of the Caucasian Mountains, and is partly in Europe and partly in Asia. It was conquered by Russia after a long struggle. The portion in Europe which lies on the northern side of the mountain-range is called Cis-Caucasia; that in Asia, Trans-Caucasia. The area of Cis-Caucasia is about 85,810 square miles; and the population about 1,837,000. **Stavropol**, the capital of Cis-Caucasia, is situated near the sources of the Tushla.



WARSAW.

**13. Poland** (*polsha*, a plain) lies between Russia proper and Prussia. It was once an independent kingdom; but, near the close of the last century and the beginning of the present, it was conquered, and divided piecemeal, by three separate acts, called the first, second, and third partitions, between Russia, Prussia, and Austria.

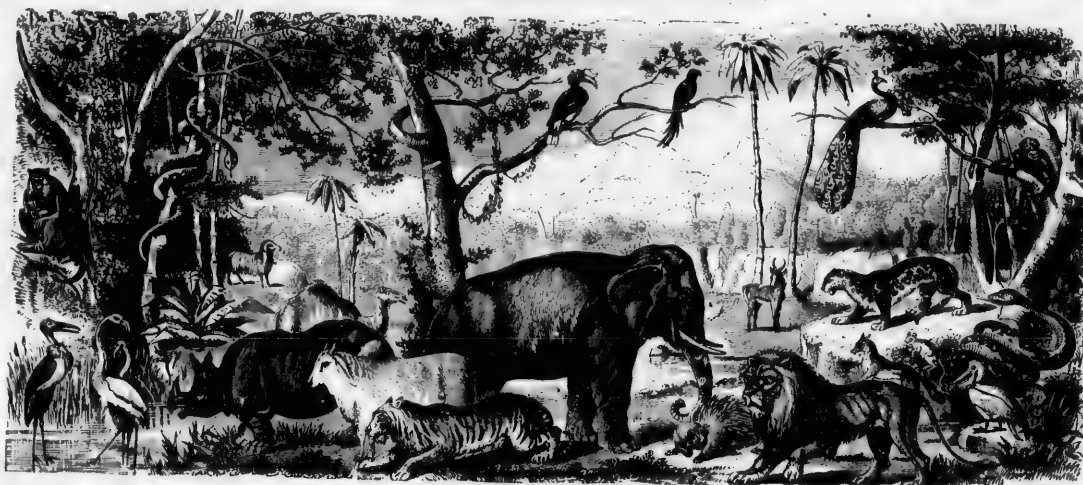
**14. Physical Features.**—Poland is a very level country. The principal river is the Vistula. The climate is cold; but the soil is very fertile, and well adapted to the growth of grain, of which large quantities are exported.

**15. Chief Cities.**—**Warsaw** (309,000), on the Vistula, was the capital of the former Polish kingdom, but it is now a Russian garrison city. **Vilna** or **Wilna** (61,000) has a large Jewish population, and does an extensive trade. It was formerly the capital of Lithuania.

## PART V.

## ASIA.

Asia, said to be so called from the fabled nymph Asia, daughter of Oceanus and Tethys.



PRINCIPAL ANIMALS OF ASIA.

1. **Boundaries.**—Asia is bounded on the north by the Arctic Ocean; on the east by the Pacific Ocean; on the south by the Indian Ocean; and on the west by the Ural Mountains, Ural River, the Caspian, Black, Mediterranean, and Red Seas.

2. **Form.**—Asia consists of an immense triangular-shaped portion of land, the longest side extending from East Cape to the Isthmus of Suez, the shortest from the Isthmus of Suez to Cape Cambodia, and the intermediate from Cape Cambodia to East Cape.

3. **Position.**—It extends from about 78° to 1° N. Lat., and from 26° E. Long. to 170° W. Long.

4. **Extreme Points.**—North, *Cape Severo* or *North-East Cape* (78° 12' N. Lat.); south, *Cape Romania* (1° 10' N. Lat.); east, *East Cape* (170° W. Long.); west, *Cape Baba* (26° 4' W. Long.).

5. **Extent.**—(a.) The extreme length of Asia from Behring Strait to Strait of Bab-el-Mandeb is about 6700 miles. The extreme breadth from Cape Severo to Cape Romania is about 5400 miles. (b.) Its area is about 16,500,000 square miles, or 4.2 times that of Europe, or is equal to a square of 71 miles. (c.) The coast-line is about 30,000 miles, or 1 mile of coast for 552 square miles of surface.

6. The estimated population amounts to 787,000,000, or an average of 48 persons to each square mile of surface.

## 7. POLITICAL DIVISIONS OF ASIA.

| Name.                         | Position.                                      | Area in English sq. miles. | Population (about) | Capital.        | N. Lat. | E. Long. | Where Situated.           | Population of Capital. |
|-------------------------------|------------------------------------------------|----------------------------|--------------------|-----------------|---------|----------|---------------------------|------------------------|
| 1. Asiatic Turkey.....        | In the extreme West.....                       | 729,700                    | 17,500,000         | Smyrna.....     | 38° 25' | 27° 0'   | Ægean Sea.....            | 150,000                |
| 2. Arabia.....                | South of Asiatic Turkey.....                   | 1,220,000                  | 5,000,000          | Muscat, &c..... | 23 30   | 58 38    | Gulf of Oman.....         | 50,000                 |
| 3. Persia.....                | North-east of Arabia.....                      | 637,500                    | 4,400,000          | Teheran.....    | 35 50   | 51 13    | Kelveh River (near).....  | 85,000                 |
| 4. Afghanistan.....           | East of Persia.....                            | 220,000                    | 4,000,000          | Cabul.....      | 34 27   | 69 8     | Cabul River.....          | 60,000                 |
| 5. Hindustan.....             | South-east of Afghanistan.....                 | 140,000                    | 2,000,000          | Kelat.....      | 28 50   | 66 40    | Gundava River (near)..... | 12,000                 |
| 6. Further India.....         | East of Hindustan.....                         | 1,820,000                  | 242,500,000        | Calcutta.....   | 22 35   | 88 25    | Hooghly River.....        | 770,000                |
| 7. Chinese Empire.....        | North-east of Hindustan and Further India..... | 812,000                    | 27,300,000         | Rangoon.....    | 16 52   | 96 20    | Iravady River.....        | 108,000                |
| 8. Independent Turkestan..... | West of Chinese Empire.....                    | 4,567,000                  | 435,000,000        | Pekin.....      | 39 54   | 116 28   | Kohuk River.....          | 1,000,000              |
| 9. Asiatic Russia.....        | Chiefly in the North of the Continent.....     | 250,000                    | 2,000,000          | Bokhara.....    | 39 46   | 64 33    | Irish River.....          | 100,000                |
| 10. Japan.....                | East of the Continent.....                     | 6,202,000                  | 13,000,000         | Tokio, &c.....  | 35 40   | 139 50   | Nippon Island.....        | 18,000                 |
| 11. Japan.....                | East of the Continent.....                     | 160,000                    | 34,340,000         | Tokio.....      | 35 40   | 139 50   | Nippon Island.....        | 1,036,771              |

## 8. Physical Coast Features.—I. In the Arctic Ocean.

(1) **Islands.**—*Liakhov* or *New Siberia Islands*, a group off the north coast of Siberia. New Siberia is 75 miles long and 30 miles broad. Fossil ivory is a valuable production of the islands.

(2) **Peninsula.**—*Tchukchi Peninsula*, in the extreme north-east of Siberia.

(3) **Capes.**—*Cape Severo*, or *North-East Cape*, the extreme northern point of Asia, north of Siberia; *Cape Sviatoi*, north of Siberia; *Cape Vostochni*, or *East Cape*, the extreme eastern point of Asia, east of Siberia.

(4) **Sea and Gulf.**—*Kara Sea*, and *Gulf of Ohl* or *Odek*, north-west of Siberia.

(5) **Straits.**—*Behring Strait* between Siberia and Alaska, joining Behring Sea and the Arctic Ocean. Discovered by Behring in 1728.

## II. In the Pacific Ocean.

(1) **Islands.**—The *Kuril Islands*, a chain of twenty-five volcanic islands, containing eight or ten active volcanoes, extend 720 miles from Kamtschatka to Japan. The three southernmost islands belong to Japan, the rest to Russia. They possess fur-bearing animals.

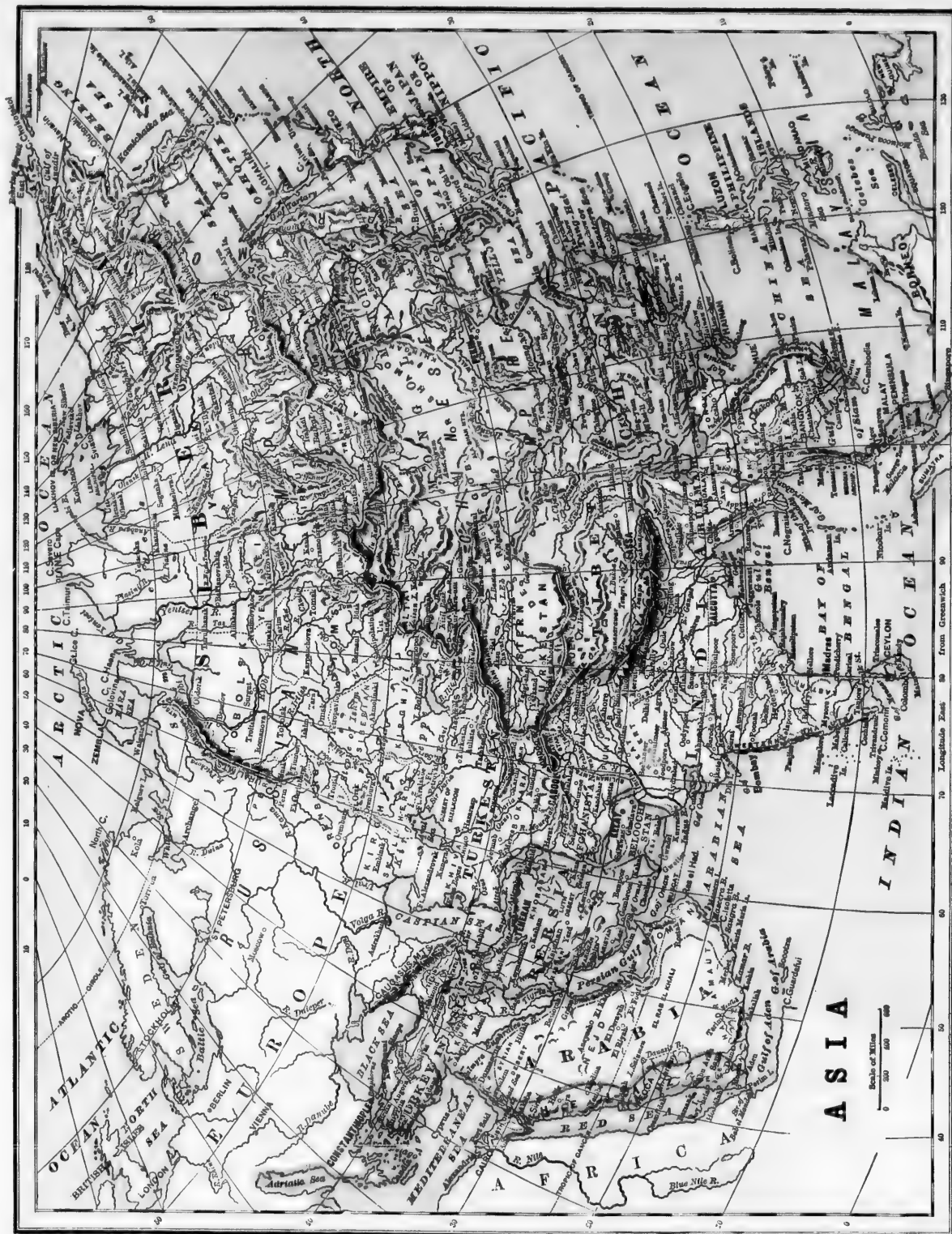
*Saghalien*, *Tarakai*, or *Krafo*, east of Siberia. The northern half belongs to Russia, and the southern to Japan. It is upwards of 600 miles long. Coal has been found in the northern portion. The inhabitants subsist mostly by fishing. They are a barbarous race.

The *Japan Islands*, east of Manchouria.

The *Loo-Choo Islands*, a group in the North Pacific Ocean, between Japan and Formosa, consisting of the Great Loo-Choo and thirty-five smaller islands. They form a southern dependency of Japan. Most of them are very fertile. The chief products are provisions and live-stock.

*Formosa* (Beautiful, so named by the Portuguese), or *Taiwan*, east of Central China. It is traversed from north to south by a lofty chain of volcanic mountains, called *Muh Kan Shan*, some of whose summits are upwards of 12,000 feet high. It has four active volcanoes. On the eastern side, the inhabitants are Malays, and on the western, Chinese. It is very fertile, producing rice, camphor, salt, sulphur, tobacco, fruits, dye-woods, and coal. The domestic animals are cattle, buffaloes, horses, asses, goats, sheep, and hogs. Chief town, *Taiwan*, on the west coast. Population of island, 3,020,000; length, 245 miles; average breadth, 70 miles; greatest breadth, 100 miles; area, about 15,000 square miles.







*Hainan*, south of China, at the mouth of the Gulf of Tonquin, produces gold, and the finest scented woods. Some of the mountains in the interior rise above the snow line. Chief town, *K'iong-choo*, on the north coast. Population of the island, 2,500,000. Area, 14,000 square miles.

(2) **Peninsulas.**—*Kamtschatka*, the north-eastern peninsula of Asia, between the Sea of Kamtschatka and the Sea of Okhotsk.

*Corea*, between the Sea of Japan and the Yellow Sea.

*Lienchow Peninsula*, east of the Gulf of Tonquin.

*Further India* or the *Eastern Peninsula*, between the Chinese Sea and the Bay of Bengal.

*Malay Peninsula*, a southern prolongation of Further India.

(3) **Capes.**—*Cape Lopatka*, south of Kamtschatka; *Cape Patience*, east of Saghalien; *Cape Aniva*, south of Saghalien; *Cape Broughton*, north-east of Yesso; *Cape King*, east of Nippon; *South-west Cape*, south of Corea; *Cape Cambodia*, south of Siam; *Cape Romania*, the extreme southern point of Asia, south of Malaya.

(4) **Seas and Gulfs.**—(a.) *Behring Sea*, enclosed by Siberia, the Aleutian Isles, and Alaska. Its principal members are, the *Gulf of Anadir*, north-east of Siberia, and the *Sea of Kamtschatka*, east of Kamtschatka.

(b.) *Sea of Okhotsk*, between Kamtschatka and Saghalien. It is enclosed on the east by the Kurile Islands.

(c.) *Sea of Japan*, between Mantchooria and Japan. Its principal members are the *Gulf of Tartary*, between the mainland and Saghalien, and *Broughton Bay*, east of Corea.

(d.) *Whang-Hai* or *Yellow Sea*, between China and the Corea. Its principal branches are the *Gulf of Pechili* and *Gulf of Leaotong* in the north-west.

(e.) *Tung-Hai*, or *Eastern Sea*, between China and the Loo-Choo Isles.

(f.) *Chinese Sea*, between China and Further India on the west, and the Philippine Islands and Borneo on the east. Its principal branches are the *Gulf of Tonquin*, between Tonquin and Hainan, and the *Gulf of Siam*, south of Siam.

(5) **Straits.**—*Kurile Strait*, joining the Sea of Okhotsk and the Sea of Kamtschatka; *La Perouse Strait*, between Saghalien and Yesso, joining the Sea of Okhotsk and the Sea of Japan; *Sungar Strait*, between Yesso and Nippon; *Strait of Corea*, between Corea and Japan, joining the Sea of Japan and the Yellow Sea; *Formosa Strait*, between China and Formosa.

### III. In the Indian Ocean.

(1) **Islands.**—*Mergui Archipelago*, in the Bay of Bengal, west of Tenasserim.

*Andaman and Nicobar Islands*, in the east of the Bay of Bengal, 180 miles south-west of Pegu. They belong to Britain.

*Ceylon*, south of Hindostan. Highest point, Pedrotallagalla, 8280 feet; length, 270 miles; breadth, 140 miles; area, 24,702 square miles; population about 2,760,000.

The *Laccadives*, *Maldives*, and *Chagos* are three long extended archipelagoes of atolls, south-west of Hindostan. The Laccadives, seventeen in number, are 150 miles west of the Malabar coast. They belong to Britain. The Maldivé Archipelago is 470 miles long, with an average breadth of 50 miles. The archipelago is ruled by a Sultan, who pays tribute to the Governor of Ceylon.

(2) **Peninsulas.**—The three great peninsulas of Southern Asia are *Arabia*, between the Red Sea and the Persian Gulf; *Hindostan*, between the Arabian Sea and the Bay of Bengal; and *Further India*, between the Bay of Bengal and the Chinese Sea. *Sinai Peninsula* is between the Gulf of Suez and Gulf of Akaba; *Katwar Peninsula* is between the Gulf of Cambay and the Gulf of Cutch; the *Malay Peninsula* is a southern extension of Further India.

(3) **Capes.**—*Ras-el-Hud*, the east point of Arabia; *Diu Head*, in the Gulf of Cambay; *Cape Comorin*, south of Hindostan; *Dondra Head*, south of Ceylon; *Cape Negrais*, south-west of Pegu.

(4) **Seas, Gulfs, and Bays.**—(a.) The *Arabian Sea* (Mare Erythraeum), between Arabia and Hindostan. Its principal members are, the *Red Sea*, between Arabia and Africa, with its branches, the *Gulf of Suez* and *Gulf of Akaba*; the *Gulf of Aden*, between Arabia and Africa; *Gulf of Oman*, between Arabia and Beluchistan; *Persian Gulf*, between Arabia and Persia; *Gulf of Cutch* and *Gulf of Cambay*, north-west of Hindostan; and *Gulf of Mannaar*, between Hindostan and Ceylon.

(b.) The *Bay of Bengal*, between the eastern shores of Hindostan and the western shores of Further India. Its principal member is the *Gulf of Martaban*, between Pegu and Tenasserim.

(5) **Straits.**—*Strait of Babel-Mandeb* (Gate of Tears), joining the Red Sea and Gulf of Aden; *Strait of Ormus*, joining the Gulf of Oman and the Persian Gulf; *Pale Strait*, between Hindostan and Ceylon; *Strait of Malacca*, between Malaya and Sumatra, joining the Bay of Bengal and the Chinese Sea.

(6) **Isthmuses.**—*Isthmus of Suez* connects Asia and Africa; *Isthmus of Kra* connects Siam and Malaya.

### IV. In the Mediterranean.

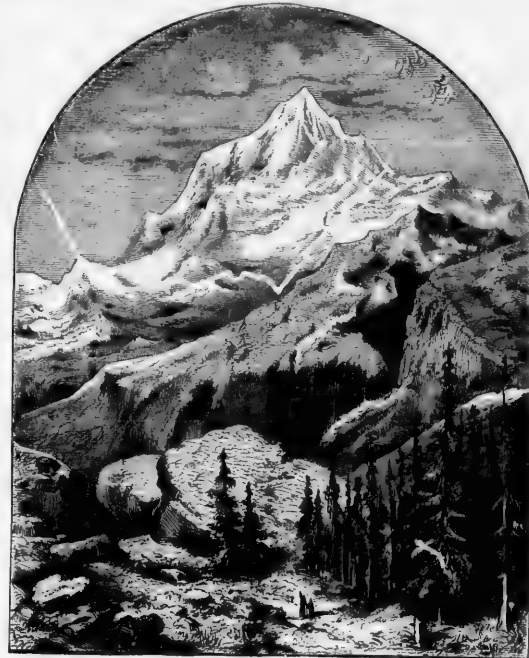
(1) **Islands.**—*Cyprus* in the Levant. It was conquered by the Turks in 1571. Capital, *Nicosia*. Length, 140 miles; breadth, 40 miles. *Rhodes*, *Samos* (Samos), *Sio* (Chios), *Psara*, *Mitylene* (Lesbos), and *Tenedos*, the key of the Dardanelles, in the Aegean Sea.

(2) **Peninsula.**—*Anatolia* or *Asia Minor*, between the Black Sea and the Levant.

(3) **Cape.**—*Baba*, in Asia Minor, the extreme western point of Asia.

(4) **Seas.**—The *Levant*, west of Syria; *Aegean Sea* or *Archipelago*, between Asia Minor and Greece; *Sea of Marmora*, between Asiatic and European Turkey; *Black Sea*, between Asiatic Turkey and Russia.

(5) **Straits.**—*Dardanelles*, joining the Aegean Sea and the Sea of Marmora; *Bosphorus*, joining the Sea of Marmora and the Black Sea.



MOUNT EVEREST.

9. **Physical Features of the Interior.**—(1.) **Mountains.**—The mean elevation of Asia is 1132 feet. From the Plateau of Pamir, between Independent Turkestan and Chinese Turkestan, four great parallel Mountain Systems extend from west to east.

(A.) **The System of the Altai Mountains** extends eastward between 50° and 52½° N. Lat. from the confluence of the Uba and Irtysh to the meridian of Lake Baikal. East of the 86th meridian it forms three ranges, the *Sayanisk*, *Tungnu*, and *Khingun Mountains*. Highest summit, Mount Katunsk or Bielucha, 12,790 feet.

(a.) The System of the *Daurian Mountains*, separated from that of the Altai by Lakes Kosgol and Baikal, extends north-east through Transbaikial, and is prolonged to the Sea of Okhotsk by the (b.) *Yablonoi Mountains*.

The Altai, Daurian, and Yablonoi Mountains separate the basins of the Yenesei and Lena from that of the Amoor.

(c.) The *Stanovoi Mountains* extend from the Yablonoi, through Eastern Siberia, between the Arctic Ocean and the Sea of Okhotsk, to East Cape. A branch of the Stanovoi, called the *Aldan Mountains*, extends northward, and another extends southward through the Peninsula of Kamtschatka. Kliutschewskier, 15,763 feet, in Kamtschatka, is the highest volcano in Asia.

(B.) **The System of the Thian-Shan Mountains** extends eastward from the north end of the Pamir, between 40° and 43° N. Lat., until it merges into the elevated tract of Gobi. It separates the basins of the Obi and the Yarkand. It is 1400 miles in length and in some places 100 miles in breadth. The highest point in the system is the gigantic block of Mountains called *Bogdo-Oola*, between the volcanic mountains, *Pekhan* and *Hoshan*, which are 1500 miles from the sea. No summit of

the Thian-Shan has yet been measured. After an interruption of more than 9½ degrees of longitude, it is prolonged by the *Inshan* or *Silver Mountains* to the Pacific, north of the Gulf of Pechili.

East of the Pamir, the Thian-Shan throws off a spur to the north of Lake Issik-Kul, called the *Altan Mountains*, and another to the north of the *El-Darya*, called the *Karatun Mountains*. Between the Caspian and the Black Sea, the *Caucasus* may be considered as a western prolongation of the Thian-Shan. Length, 750 miles; breadth from 65 to 150 miles. Highest summit, Mount Elburz, on the European side of the range, 18,571 feet.

(C.) **The Mountain System of the Kuen-Lun**, bounding Tibet on the north, extends eastward from the south end of the Bolor in the parallel of 36° N. Lat. to the Lake of Koko Nor. The *Nan-shan* and *Kilian-shan* chains, lying somewhat farther north and extending to the Chinese Wall, and the *Peling Mountains*, lying somewhat farther south between the Yang-tse-kiang and Hoang-Ho, may be regarded as eastern prolongations of the Kuen-Lun. Height of the Kuen-Lun Mountains, about 21,000 feet. Height of the snow line on the south side, 15,800 feet; on the north side, 15,000 feet. The Elchi Pass is 17,379 feet above the sea. Average height of the passes of the Kuen-Lun, 16,850 feet.

**The Kara-Korum Mountains**, in Tibet, diverge from the western end of the Kuen-Lun, in a direction from north-west to south-east parallel to the Himalayas. Highest summit, Dapsang Peak, 28,300 feet. Height of the snow line on the south side, 19,400 feet; on the north side, 18,600 feet. The Kara-Korum Pass is 18,345 feet above the sea.

West of the Bolor, the Kuen-Lun is prolonged by the (a.) *Hindoo Koosh*, north of Afghanistan.

(b.) *The Paropamisar Range*, also north of Afghanistan, and north-east of Persia, separating Turkistan from the Plateau of Iran. Highest summit, Koh-i-Baba (Tchalap Peak), 16,000 feet.

(c.) *The Elburz Range*, south of the Caspian. Highest summit, the volcanic peak of Demavend, 18,464 feet.

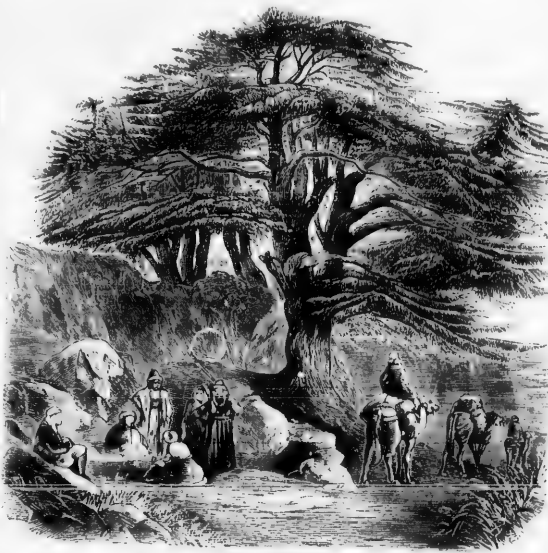
(d.) *The Mountains of Armenia* between the basins of the Caspian and Black Seas. Highest summit, Mount Ararat, 16,964 feet.

(e.) *The Taurus Range*, north of the Levant.

NOTE.—The Kuen-Lun and the American Andes are the longest mountain ranges in the world.

(D.) **The Mountain System of the Himalaya** (Sans. *hima*, snow; *alaya*, abode, Abode of Snow), the ancient *Imaus* (snow), bounding Tibet on the south, extends south-eastward in an irregular curve from the south of the Pamir to the great bend of the Brahmaputra. Its length is 1500 miles, and its breadth varies from 150 to 350 miles. It is the most elevated and stupendous system on the globe. Its mean height is estimated at from 16,000 to 18,000 feet. One hundred and twenty of its peaks exceed 20,000 feet. The highest summit is Mount Everest or Gaurisanker, 29,002 feet, between Dhawalagiri (White Mountain), 28,080 feet, and Kinchin-junga, 28,146 feet. Height of the snow-line on the south side, 16,200 feet; on the north side, 14,000 feet. The average height of the passes of the Himalayas is 17,700 feet.

(a.) *The Nan-ling Range*, in China, between the Yang-tse-kiang and the Choo-kiang, appears to be the eastern continuation of the Himalaya.



CHIEFS OF LEBANON.

#### The following are the principal Meridian Chains:

(a.) **The Ural Mountains**, between Asia and Europe, extend from the Arctic Ocean to the Ural River. Length, 1200 miles; average height, 3000 feet.

(b.) **The Lebanon Range** extends southward from the Taurus Range to Mount Hermon, 9953 feet, and thence to Mount Horeb, 8593 feet, and Mount Sinai, 7497 feet, between the Gulfs of Suez and Akaba.

(c.) **The Zagros Mountains**, 12,000 feet, between the basins of the Tigris and the Caspian, continued to the south-east by the *Luristan Mountains*.

(d.) **The Suliman Mountains** extend southward between the Punjab and Afghanistan, from the famous Khyber Pass (34° N. Lat.) to the great south bend of the Indus (29° N. Lat.). Average height, 6000 feet. Highest summit, Takht-i-Suliman (Seat of Solomon), 11,301 feet. Farther south, separated from the Suliman Mountains by the Bolan Pass, are the *Hala* or *Lukbi* Mountains, which extend to Kurrachee, at the mouth of the Indus.

(e.) **The Western Ghats** extend southward at a distance of about 40 miles from the west coast of Hindostan from the Taptee to Cape Comorin. Length, about 1000 miles; average height, 4000 feet. Highest summit, Dodabetta, 8800 feet. The average height of the Eastern Ghats, which extend along the east coast of Hindostan, is only about 1500 feet.

NOTE.—The word *Ghaut* means pass, terrace, or step.

(f.) **The Mountains of Aracan** run southward between the Irawady and the Bay of Bengal, and terminate in Cape Negrais. Highest point, Blue Mount, 8900 feet.

(g.) **The Yung-ling Mountains**, 12,000 feet, bounding Tibet on the east, run southward between the Hoang-Ho and the Yang-tse-kiang. They are prolonged, in the form of a narrow chain, through Further India, between the Saluen on the west and the Mekong and Meinam on the east, and stretch through the Malay Peninsula to Cape Romania. The highest known summit in Tibet is Nen-Da, near Batang, 22,000 feet. The highest summit in Malaya is Tidlang-sa, 6561 feet.

(h.) **The Khin-ghan Mountains**, an offset of the Yablonoi, separating Mongolia from Manchuria, run southward from the north bend of the Amoor to the Inshan Mountains.

(2.) **Plateaus**.—The central portion of Asia, extending from the Mediterranean on the west to the plains of Manchuria on the east, is occupied by an immense plateau. Its length is about 5500 miles, and its breadth varies from 700 to 2000 miles. Its area is estimated at about one-half of the surface of the continent. It is divided into two systems which meet at the Pamir Plateau.

#### (A.) The Western System consists of the following portions:

(a.) **The Plateau of Iran** includes Persia, Afghanistan, and Beluchistan. It is bounded on the north by the small plains of Georgia, the Caspian Sea, the desert of Khiva, and the low plains of the Amu-Darya; on the east by the Indus River; on the south by the slopes of Beluchistan and the Persian Gulf; and on the west by the plains of the Tigris and the Plateau of Armenia. The central portion of the plateau consists of extensive salt wastes and immense deserts of sand. The Great Salt Desert in the north of Persia and Afghanistan covers 30,000 square miles. This plateau has an elevation of 3500 feet, and its area is nearly one million of square miles.

(b.) **The Plateau of Armenia** is bounded on the north by the Black Sea and the valley of the Kur; on the east by the Plateau of Iran; on the south by the Plains of Mesopotamia; and on the west by the Plateau of Asia Minor. It is a cold, treeless region, with an elevation of 7000 feet.

(c.) **The Plateau of Asia Minor or Anatolia** is bounded on the north by the Black Sea; on the east by the Plateau of Armenia; on the south by the Levant; and on the west by the Aegean Sea. It has a mean elevation of from 3000 to 4000 feet.

#### (B.) The Eastern System consists of the following portions:

(a.) **The Plateau of Pamir** is the loftiest in the world, and is called by the natives *Bam-i-duneah*, the Roof of the World. It has an elevation of 15,600 feet. Its length from north to south is about 180 miles, and it has an average breadth of about 90 miles.

(b.) **The Great Central Plateau** is buttressed on the north by the Altai, Daurian, and Yablonoi Mountains; on the east by the Khin-ghan, Inshan, and Yun-ling ranges; on the south by the Himalayas; and on the west by the Plateau of Pamir. It includes the following divisions:

(1.) **The Plateau of Tibet** is enclosed on the north by the Kuen-lun range; on the east by the Yun-ling; on the south by the Himalayas; and on the west it narrows into the Karakorum Mountains. Its surface is broken by numerous mountain chains, and has an elevation of from 15,000 to 16,000 feet.

(2.) **The Plateau of Kashgaria and Mongolia** is bounded on the south by the Kuen-lun; on the west by the Pamir; on the north by the Thian-shan; and on the east by the Khin-ghan Mountains. In Kashgaria it has an elevation of from 4000 to 5000 feet. From about the meridian of 87° E. Long. to the Khin-ghan Mountains, in 120° E. Long., it is traversed by the Great Steppe of Gobi, or Naked Desert. It is more than 2000 miles in length from south-west to north-east, and has a breadth varying from 300 to 700 miles, and an elevation of 3500 feet. It is crossed from west to

cast by a depressed valley called the Sha-mo, or Sand Sea. The western portion is the most arid, and is called Han-hai, or Dry Sea. The Steppe is not altogether barren, many portions producing a scanty vegetation. The open valleys between the hills connecting the Thian-shan and Altai Mountains form the chief communications between Mongolia and Western Asia.



SUNSET IN THE DESERT OF GOBI.

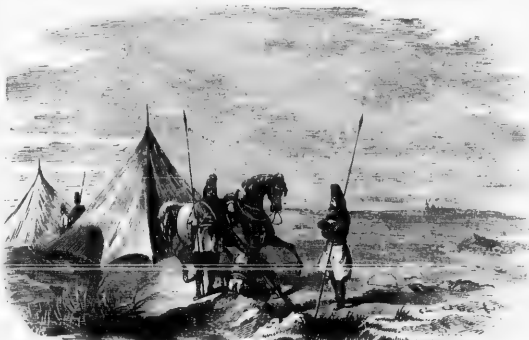
(C.) (1.) The interior of the peninsula of Arabia is a plateau called *Nedj* or *Highland*, as distinguished from the low belt which surrounds the coast. On the north the plateau sinks into the Syrian Desert. It has an elevation of from 5000 to 6000 feet.

(2.) The *Plateau of Deccan*, or the South, in Hindostan, is triangular in shape. It is bounded on the north by the Vindhya Mountains, and on the east and west by the Ghats. The surface is a combination of plains and isolated conical hills. It has an elevation of 2000 feet. The climate is fine and the soil fertile.

(3.) **Plains.**—(a.) The *Siberian Plain* extends from the eastern slopes of the Ural Mountains on the west to Behring Strait on the east, and from the Altai, Yablonoi, and Stanovoi Mountains on the south to the Arctic Ocean on the north. It occupies an area of 4,500,000 square miles. In the north, a belt of barren moss-covered land, called the *Tundra*, extends along the Arctic coast with a mean breadth of about 150 miles. In summer the surface is swampy, and in winter is hard bound with ice and snow. The subsoil is frozen to the depth of several hundred feet. South of the Tundra region the surface is covered with forests of birch and pine. South of the wood-land in western Siberia is the region of the Steppes.

The *Steppe of Barabinsk* extends between the Irish and the Obi; the *Steppe of Iskim* between the southern Urals and the Irish; and the *Kirghis Steppe* between the Ural river and Lake Balkash.

(b.) The *Plain of Turkestan* extends from the Kirghis Steppe on the north to the Plateau of Iran on the south, and from the Caspian Sea on the west to the Pamir on the east. It slopes on all sides towards the Caspian and the Sea of Aral. It is a vast desert region divided by the Amu-Darya and Sir-Darya, along whose courses there are fertile strips. Between these rivers is the desert of Kizilkoom, or Red Sand. North of the Sir-Darya is the desert of Karakoom, or Black Sand.



VIEW ON THE PLAIN OF TURKESTAN.

(c.) The *Plain of Mesopotamia* extends from the plateau of Armenia to the head of the Persian Gulf. On the west and east it is enclosed by the Arabian and Iranian plateaus. It is traversed by the twin-rivers Euphrates and Tigris. In ancient times it possessed great fertility, but is now almost a desert.

(d.) The *Plain of Hindostan* extends from the southern slopes of the Himalayas on the north, to the Arabian Sea, the plateaus of Southern India, and the Bay of Bengal on the south; and from the Indus on the west, to the Brahmaputra on the east. Its area is estimated at 500,000 square miles. It is watered by the Indus and the Ganges. The widest part of the plain is between the Suliman Mountains and the Aravulli range. The most desert part of the plain, called the *Thur*, occupying 150,000 square miles, lies between the Indus and the Aravulli Mountains. It is from 300 to 400 miles wide, and extends southward to the *Run of Cutch*, which has an area of 7000 square miles, and is very fertile, with the dry and rainy seasons, a desert and a morass. The *Doabs*, or the converging plains between the rivers of the Punjab, are very fertile.

The portion of the plain watered by the Ganges is one of the best cultivated and most fertile parts of Hindostan. It is celebrated for its wheat, opium, and indigo. The narrow belt separating the forests of the Himalayas from the valley of the Ganges is called the *Turai*, or Swamp.

(e.) The *Plains of Further India* skirt the coast of that peninsula from the Gulf of Tonquin to the Gulf of Siam, and include the rich valleys watered by its rivers. They produce large crops of rice.

(f.) The *Plain of China* lies to the east of the 110th meridian, and extends from the Great Wall, north of Peking, along the shores of the Gulf of Pechili and the Yellow Sea, to Han-chow Bay. It varies in breadth from 150 to 400 miles, and has an area of 210,000 square miles. It has been formed by the alluvial deposits brought down by the Hoang-Ho and the Yang-tse-kiang, and is one of the most fertile, best cultivated, and most populous tracts on the globe. The Great Canal passes from south to north through the eastern part of the plain, connecting Naunkin (South Court) with Peking (North Court) and has a total length of about 700 miles.

(g.) The *Plain of Kortchin*, in Mantchooria, is a wide desert plain extending eastward from the base of the Khin-ghan Mountains. It resembles the Great Desert of Gobi, but is less barren.

(h.) The *Tehama* (or Lowland) is a sandy, maritime plain, from 30 to 60 miles wide, which surrounds the peninsula of Arabia from the Isthmus of Suez to the head of the Persian Gulf. It is bounded by hills from 500 to 1000 feet high, running parallel to the coast; but, in Oman, Jebel-Akhdar rises to 6010 feet.

(i.) A sandy maritime plain extends along the whole coast of the Plateau of Iran. The Persian part of the plain is called *Dukistan*, and that south of Beluchistan, the desert of *Makran*.

(4.) **Water-partings.**—These are specified in connection with the rivers.

(5.) **The Rivers** may be arranged as follows:—

I. The Arctic System; II. The Pacific System; III. The Indian System; IV. The Atlantic System; V. The Continental System.

#### I. The Arctic System.

The Arctic Basin, or Northern Watershed, is bounded on the west by the Urals, and on the south by the Altai, Daurian, Yablonoi, and Stanovoi Mountains. Its extreme points are Cape Waigatz and East Cape.

The three principal rivers of the Arctic System are the *Ob*, or *Obi*, the *Yenesel*, and the *Lena*.

(a.) The *Obi* is formed by two streams, the *Biya* and the *Kötnu*, from the Altai Mountains. The former drains Lake Teletskoi, which is sometimes regarded as the source of the Obi, and receives the latter at Bijsk. It flows generally from south-east to north-west, and ends in the Gulf of Obi. Length, 2500 miles; area of basin, 1,250,000 square miles. It receives on the right bank the *Tom* (after passing Tomsk), the *Chulim* and the *Ket*. It receives on the left bank the *Irtish*, which is larger than the Obi and is in fact the trunk stream. It rises in Mongolia, traverses Lake Zaisan, flows north-west, and joins the Obi in 61° N. Lat. It receives on its left bank the *Ishim*, and at Tobolsk the *Tobol*.

(b.) The *Yenesel* is formed by two streams which rise on the Altai plateau. The western branch, or the *Yenesel* proper, is called in its upper course the *Ula Aem*, which flows west, and bursting through the Sayansk chain, flows north and enters the Siberian plain below Krasnojarsk. The eastern branch issues from Lake Kosgol as the *Selenga*, receives the *Orkhon*, and enters Lake Baikal on the south-east side, after a course of 700 miles. As the *Lower Angara*, it issues from the southern end of the lake, flows north, receives the *Olz* on its left bank, after which it is called the *Tunguska*. Its course is then north and west to its confluence with the *Yenesel* above Yeneseisk. The united stream then flows nearly north to the ocean, which it enters by an estuary 200 miles long, with an average breadth of 20 miles. Length, 3200 miles; area of basin, 1,110,000 square miles. It receives on the right bank the *Middle* and *Lower Tunguska*.

(c.) **The Lena** rises about 20 miles west of Lake Baikal, and flows north-east as far as Yakutsk, below which it receives on the right bank the *Aldan* from the Vablonoi Mountains. It then flows north, and enters the Arctic Ocean by a large delta. Length, 2700 miles; area of basin, 800,000 square miles. It receives on the right bank the *Vitim* at Vitinsk, the *Olekma* at Olekminsk, and its chief tributary the *Aldan*. It receives on the left bank the *Viloni*.

**Minor Rivers.**—Between the Yenesei and the Lena are the *Piazina*, *Khatanga*, *Anabara*, and *Olenok*. East of the Lena are the *Yana*, the *Indigirka* (length, 600 miles; area of basin, 86,400 square miles), and the *Kolima* (length, 500 miles; area of basin, 107,200 square miles).

## II. The Pacific System.

The Pacific Basin, or Eastern Watershed, is formed by the Stanovoi, Vablonoi, and Daurian Mountains; by the mountains forming the eastern boundary of the Great Central Plateau; and by the prolongation of the Yun-ling Mountains through Further India to the extremity of Malaya. Its extreme points are East Cape and Cape Romania.

The four principal rivers of the Pacific system are the **Amoor**, the **Hoang-ho**, the **Yang-tse-kiang**, and the **Me-kong**.

(a.) **The Amoor**, or Great River, called also the *Saghalién*, or Black Water, rises in the central plateau under the name of *Kerulen*, passes through Lake Kulun, and as the *Argun* forms the boundary between Siberia and Mongolia. It receives the *Shilka*, called in its upper course the *Onon*, at Fort Baklanova, from the junction of which to the sea it is called the Amoor. Below the confluence of the Argun and Shilka, the Amoor forces its way through the Khing-ghan chain, and flows south-east between Siberia and Mantchooria, to the confluence of the *Soungari*; thence it flows north-east, and ends opposite the north end of the island of Saghalien. Length, 2650 miles; area of basin, 786,000 square miles. It receives on the right bank the *Soungari*, River of Milk, which drains Mantchooria, and the *Csurri*, which, with Lake Khanka, forms the boundary between Russia and China.

(b.) **The Hoang-ho**, or Yellow River, rises in a series of lakes near the eastern end of the Kuen-lun Mountains, runs in a winding north-eastward course to the Inshan Mountains, turns eastward and then southward to the Peling Mountains, and thence eastward to the Gulf of Pechili. It has a furious current, and its inundations are so destructive that it is called China's Sorrow. It receives on the right bank, the *Weiko* from the Peling Mountains. Length, 2300 miles; area of basin, 714,300 square miles.

(c.) **The Yang-tse-kiang** (Son of the Ocean), the largest river of Asia, rises in the plateau of Tibet, and flows east under the name of *Murui-Ussu*. It then flows south-eastward, as the *Kin-sha-kiang*, or River of the Golden Sand, to the province of Yunnan. From Tongchuen, its general course is north-east to the Yellow Sea, which it enters about 200 miles below Nankin, by an estuary 30 miles wide. In the middle part of its course is called the *Tu-kiang*, or Great River, and only from Lake Poyang to the sea it is called by the Chinese *Yang-tse-kiang*. At Han-kow, 500 miles from the sea, it is 3 miles wide. The tide ascends the river to Lake Poyang, 400 miles from its mouth. The population on its banks is estimated at 100,000,000. Length, 3320 miles; area of basin, 950,000 square miles. It receives on its left bank the *Yalung*, near its most southern point; the *Min*, and at Han-kow, the *Hankiang*. It receives on the right bank the waters of Lake Tung-ling, 200 miles in circumference, fed by the *Yuen* and *Heng* from the Nangling Mountains, and the waters of Lake Poyang, 90 miles long, fed by the *Kang-kiang*.

(d.) **The Mekong**, or Cambodia, rises north of latitude 32° N., in Tibet, where it is called the *Lan-tan-kiang*, flows southward intersecting the Chinese province of Yunnan, and in its lower course separating Anam from Siam. It enters the Chinese Sea by several mouths which form an extensive delta. Length, about 2000 miles; area of basin, 300,000 square miles.

**Minor Rivers.**—The *Anadir* flows through Siberia into the Gulf of Anadir. The *Pes-ha*, White River, rises in Mongolia, receives the *Euko*, and falls into the Gulf of Pechili. The *Choo-kiang*, Pearl River, or *Canton River*, rises in the Yunnan Mountains, flows east, and enters the Chinese Sea by an estuary called the *Bocca Tigris*. Length, 580 miles; area of basin, 99,200 square miles. The *Meknam*, Mother of Waters, rises in the mountain ridge that separates the Saluen from the Mekong, flows south through Siam, and enters the Gulf of Siam below Bangkok. Length, 800 miles.

## III. The Indian System.

The Indian Basin, or Southern Watershed, is bounded on the east by the prolongation of the Yun-ling Mountains through Further India, between the Mekong and Saluen, to the extremity of Malacca; on the north by the Himalaya Mountains, Hindoo-Koosh, Paropamisian Range, Elburz Mountains, and Mountains of Armenia; and on the west by the Mountains of Syria and Arabia. Its extreme points are Cape Romania and Bab-el-Mandeb.

The six principal rivers of the Indian System are:

The **Irawady**, the **Brahmaputra** or **Tsanpu**, the **Ganges**, the **Indus**, the **Tigris**, and the **Euphrates**.

(a.) **The Irawady** (Great River), is supposed to rise in the Patkoi Mountains, the eastern boundary of the Brahmaputra basin, flows south through Burmah, and enters the Gulf of Martaban by fourteen mouths, which occupy 200 miles of the coast. Its delta extends from Cape Negrais to the head of the Gulf, and covers an area of 10,000 square miles. The only mouth which is always navigable is that on which Rangoon is situated. Steamers ascend to Bhamo, 600 miles from the sea. Length, 1200 miles; area of basin, 331,000 square miles.

(b.) **The Brahmaputra** (Offspring of Brahma), or *Tsanpu*, rises in Tibet, near the source of the Indus, in 80° E Long., at an elevation of 14,000 feet. It flows east under the name of the *Tsanpu* on the north side of the Himalayas for about 1000 miles. It then turns south and breaks through the mountains. Leaving the mountains at the Sacred Pool, *Brahma-kund*, it runs south-west through Assam to Goalpara, and then south to the eastern branch of the Ganges. It is said to discharge 150,000 cubic feet of water in a second. It floods Upper Assam during the rainy season from April to September, its waters rising 30 or 40 feet. In Assam, it receives not fewer than sixty tributaries. Length, 1680 miles; area of basin, 330,000 square miles.

(c.) **The Ganges** issues from a snow bed, in a stream 40 yards wide, on the southern slope of the Himalayas, at an elevation of 13,800 feet. Its course is first south-west for 200 miles to Hurdwar, where it enters the plain. It then flows in a general south-east course to near the head of the delta, when it turns south to the Bay of Bengal. The delta begins about 200 miles from the sea, and the mouths of the river occupy about 200 miles of the coast. The most eastern branch is called the Ganges, and the western the Hoogly. Fourteen of the channels are navigable. The detoldial region, a pestiferous tract, infested with tigers and crocodiles, and thickly covered with trees and jungle, is called the Sunderbuds or Woods. The river is 1024 feet above the sea at Hurdwar, 400 at Allahabad, and 80 at the head of the delta. It has been calculated that the Ganges carries annually to sea 6,368,077,440 cubic feet of sediment, to remove which would require 2000 ships, each freighted with 1400 tons of mud to start every day of the year. Length, 1500 miles; area of basin, 432,000 square miles.

It receives on the right bank the *Yumna*, 800 miles long, at Allahabad, and the *Sone* above Patna. It receives on the left bank the *Gootes*, the *Gogra*, which is nearly a mile wide at the confluence and joins the main stream at Chupra, and the *Gunduck*, which joins it near Patna.

(d.) **The Indus** rises in Tibet, on the north side of the Himalayas, not far from the sources of the Sulej and Brahmaputra, at an elevation of 16,000 feet. Under the name of *Sinkhabab*, or Lion's Mouth, it runs first north-west in the valley between the Karakorum and Himalaya ranges until it approaches the Hindoo-Koosh. It then turns south-west and breaks through the Himalayas at Acho, about 750 miles from its source, where it is 4500 feet above the sea. It enters the Plain of Hindostan at Attock, and holds its south-west course parallel to the Suliman and Hala Mountains, and enters the Arabian Sea by seven channels. Its delta begins at Tatta, 60 miles from the sea, and extends along the coast for 160 miles. Length, 1800 miles; area of basin, 312,000 square miles.

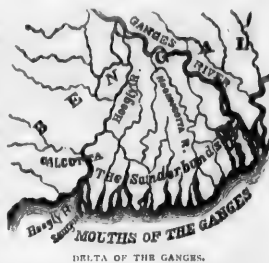
It receives on the right bank the *Cabul* from the Hindoo-Koosh, at Attock. In its lower course the *Cabul* forms the Khyber Pass.

It receives on the left bank the *Punjunud*, which brings to it the waters of the *Punk* (Pentapotamides) or country of the Five Rivers. These rivers named, from west to east, the *Jhelum* (Hydaspes), the *Chenab* (Acesines), the *Ravi* (Hydrates), the *Beas* (Bij), and the *Sulej* (Hesudrus).

The *Chenab* receives the *Jhelum* on its right, and the *Ravi* on its left bank. The *Sattlej*, the largest river in the Punjab, rises in the sacred lakes, Manasorwar and Rakas Tal, at an elevation of 15,200 feet. In its lower course, it is called the *Ghara*, and unites with the *Chenab* to form the *Punjunud*, which enters the Indus, at Mittun.

(e.) **The Tigris** (or the Arrow) rises in Armenia, on the south side of the Masius, a detached branch of the Taurus chain. It flows south-east and joins the Euphrates at Ctesiphon. It receives on the left bank the *Zab Ala* (Great Zab), the *Zab Asfal* (Little Zab), and the *Diyaleh*. Length, 1150 miles.

(f.) **The Euphrates** is formed by the union of two streams, the *Karasn* or western branch, and the *Muradzu* or eastern branch. The latter, the larger of the two, rises on the southern slope of the Ala-Tagh, or Beautiful Mountain, which lies between Mount Ararat and Lake Van; and the former rises about 20 miles north-east of Erzeroum. Both flow south-west and unite near Arabgir. The united stream takes the name of Euphrates, and flows south, approaching within 100 miles of the Mediterranean. It then turns and flows south-east to the Persian Gulf. It receives on the right bank the *Tokmah-ru* (Melas), below Malatiah (Melitene), and on the left bank the *Khabur* (Chaboras).





The united Euphrates and Tigris is called the *Shat-el-Arab*, or River of the Arabs, which flows 150 miles from Korna and ends in the Persian Gulf, by several branches which embrace a delta extending 37 miles along the coast. The *Shat-el-Arab* receives on the left bank the *Kerkha* and the *Karoon*. Length, 1780 miles; area of basin, 196,000 square miles.

**Minor Rivers.**—The *Salween*, from the Chinese province of Yunnan, flows south through Burma, and enters the Gulf of Martaban, between Martaban and Moumein. The *Sittoung* falls into the head of the Gulf of Martaban.

In Hindostan, the *Mahanuddy* (530 miles, 60,000 square miles), the *Godavary* (900 miles, 105,000 square miles), the *Kistnah* or *Krishna* (800 miles, 110,000 square miles), the *Pennair*, and the *Canavery* (480 miles, 36,000 square miles), all flow into the Bay of Bengal; and the *Tapti* (450 miles, 25,000 square miles) and *Nerbudda* (800 miles, 60,000 square miles), flow west in the Gulf of Cambay.

#### IV. The Atlantic System.

The rivers of the Atlantic System are, comparatively, of inconsiderable magnitude. They all flow into the Mediterranean and Black Seas.

The *Ari* (Orontes) rises on the western slope of the Anti-Lebanon, runs north-west parallel to that chain, and falls into the Mediterranean below Antioch. The *Tychoon* (Pyramus) and the *Sihom* (Sarus) rise in the plateau of Asia Minor, run through passes in the Taurus to the Bay of Ilianderon. The *Menderes* (Mender), remarkable for its windings, and the *Kodus-chai* (Hermus) flow west through Asia Minor to the *Egean*. The *Sakaria* (Sangarius) in Asia Minor, flows first west and then north, and ends in the Black Sea. The *Kizil Irmak* or Red River (Hays), the largest river in Asia Minor, rises in the centre of that plateau, flows south-west, then bends round, and runs north-east to the Black Sea; length, 530 miles.

#### V. The Continental System.

(a.) The *Kur* (Cyrus) rises near the Black Sea, flows first north-east, and then south-east through Georgia, and enters the Caspian Sea. Its chief tributary is the *Aras* (Araxes). Length, 530 miles; area of basin, 64,640 square miles.

(b.) The *Amu Darya* or *Jihun* (Oxus) rises in Lake Sir-i-kol, 15,600 feet above the sea, on the Pamir Plateau, flows north-west through Turkestan, and enters the Sea of Aral on the south-west; length, 1100 miles; area of basin, 193,600 square miles.

(c.) The *Sir-Darya* (Jaxartes) rises in the Thian-Shan, south of Lake Issik-Kul, flows north-west through Russian Turkestan, and enters the Sea of Aral on the north-east; length, 1000 miles; area of basin, 237,920 square miles.

(d.) The *Yarkand* or *Tarim* rises in Lake Karakol on the Pamir Plateau, and runs through Kashgaria, in a remarkable depression only 1200 feet above the sea, and enters Lob Nor; length, 1000 miles; area of basin, 177,120 square miles.

(e.) The *Helmund*, the largest river of the Plateau of Iran, rises near Cabul, at an elevation of 11,500 feet, flows south-west, and then west through Afghanistan and enters Lake Seistan or Hamoon; length, 650 miles; area of basin, 76,380 square miles.

(f.) The *Heri Rood* rises in the northern part of Afghanistan, flows westward by Herat, and, after a course of about 430 miles, is lost in the desert.

(g.) The *Jordan* (the Descender), rises in Mount Hermon, flows south through Bah-el-Huleh (Lake Merom), and Bahr-Tubariyeh (Sea of Galilee), and falls into Bahr Lut (Dead Sea); length, 200 miles. Its distance from the Sea of Galilee to the Dead Sea is 70 miles, but its length increased to 200 by its windings. It is said to be the most crooked river in the world.

(6.) **Lakes.**—The lakes may be arranged in five divisions.

##### (A.) Lakes in the Arctic Basin.

(a.) *Lake Zaisan*, in Dzungaria, drained by the Irtysh. Height above the sea, 1720 feet; length, 86 miles; breadth, 30 miles; area, 2500 square miles.

(b.) *Lake Kozkol*, in Mongolia, drained by the Selenga river, a feeder of Lake Baikal. It abounds in fish. Height above the sea, 4000 feet; length, 150 miles; breadth, 30 miles.

(c.) *Lake Baikal*, the Holy Sea of the Russians, in the south of Siberia, is the largest fresh-water lake in Asia. It is crescent-shaped. It receives the Selenga, after a course of 700 miles, on the south-east side, and the Upper Angara, after a course of 450 miles, at the north-east end. Its only effluent is the Lower Angara, the chief tributary of the Yenesei. It is frozen over from November to April. Seals, salmon, and sturgeon abound in its waters. Height above the sea, 1280 feet; greatest depth, 460 feet; length, 370 miles; breadth from 30 to 40 miles; area, 13,287 square miles.

##### (B.) Lakes in the Pacific Basin.

(a.) *Lake Hin-ka* or *Khan-kai*, on the border between Mantchooria and Russia, drained by the Usuri, a tributary of the Amoor; length, 60 miles; extreme breadth, 30 miles.

(b.) *Koko-nor* or *Blue Lake*, in Mongolia, in the basin of the Hoang-ho. It has no outlet, and its waters are salt and bitter; length, 65 miles; breadth, 20 miles.

(c.) *Lake Tung-ling*, in China, fed by the rivers Yuen and Heng from the Nan-ling Mountains, is drained by the Yang-tse-kiang; area, 2000 square miles.

(d.) *Lake Po-yang*, in China, fed by the Kan-kiang, 400 miles long, is drained by the Yang-tse-kiang; length, 99 miles; extreme breadth, 20 miles; area, 800 square miles.

(e.) *Tale Sab*, or *Great Lake*, in Cambodia, an expansion of the Tasawal river, a tributary of the Mekong. In the wet season, it is a hundred miles long, 40 miles wide, and 45 feet deep. Its waters abound in fish.

(c.) **Lakes in the Indian Basin.**—(a.) *Lake Palter*, a ring-shaped lake, 40 miles in diameter, in Tibet, probably connected with the Brahmaputra. Height above the sea, 13,500 feet.

(b.) *Sambhar Lake*, in Hindostan, at the north extremity of the Aravalli Mountains. Its waters are salt. Length, 22 miles; breadth, 6 miles.

(c.) *Lake Manasarovar*, at the foot of the sacred Mount Kailas, in Tibet, is the source of the Sutlej. It pours its waters into *Lake Rakas-dal*. It is nearly circular in shape, and about 15 miles in diameter. Height above the sea, 11,300 feet.

(d.) *Wullur Lake*, in the valley of Kashmir, is an expansion of the Jhelum. It is noted for its water nuts. Height above the sea, 5200 feet; length, 21 miles; breadth, 9 miles.

(d.) **Lake in the Atlantic Basin.**—*Tungol*, or *Great Salt Lake*, in Asia Minor, in the basin of the Kizil Irmak. It is the saltiest lake known, its waters containing 32 per cent. of saline matters. It receives the Beasau, but has no outlet. Height above the sea, 3500 feet; length, 45 miles; extreme breadth, 15 miles; area, 175 square miles.

##### (E.) Lakes in the Continental Basin.

(a.) **The Caspian Sea**, north of Persia, and west of Turkestan, is the largest lake in the world. Its waters are salt, but less so than those of the Ocean. It receives the Ural, Volga, Terek, and Kur. It has sturgeon and salmon fisheries, and seals are caught on its islands. Its surface is 83 feet 6 ins. below the level of the Black Sea. It is shallow in the north, and its greatest depth in the south is 3000 feet; length, 810 miles; average breadth, 210 miles; area, 169,666 square miles.

(b.) **The Aral Sea**, a salt lake east of the Caspian, from which it is separated by the Ust-Urt Plateau. It receives the Amu-Darya, and the Sir-Darya, but has no outlet. Its surface is 120 feet above the level of the Caspian, and 37 above that of the Black Sea. The eastern portion is shallow; the greatest depth on the western side is 220 feet; length, 280 miles; extreme breadth, 170 miles; area, 27,000 square miles.

(c.) *Lake Sirikol* or *Victoria*, the source of the Amu-Darya, on the Plateau of Pamir, is the highest known lake, being 15,600 feet above the sea.

(d.) *Lake Issikkul* or *Warm Lake*, in the east of Russian Turkestan. Its waters are salt but not bitter, and are never frozen. The streams which flow into it are frozen over for three months of the year. Height above the sea, 5000 feet; length, 113 miles; breadth, 30 miles; area, 2468 square miles.

(e.) *Lake Balkash* or *Tengiz*, in Russian Turkestan, receives the Ili in the south, and has no outlet. Its waters are bitter salt. In shape, it is very irregular. Height above the sea, 700 feet; greatest depth, 70 feet; length, 300 miles; breadth, from 10 to 70 miles; area, 11,500 square miles.

(f.) *Lob Nor*, in Eastern Turkestan, receives the Yarkand. Length, 60 miles; area, 1300 square miles.

(g.) *Lake Namcho*, or *Tengri Nur*, in Tibet, is 50 miles long, and 20 miles wide; area, 1000 square miles. It is 15,100 feet above the sea.

(h.) *Lake Zurrak*, *Haman*, or *Seistan*, on the borders of Persia and Afghanistan, receives the Helmund, Furrah, and Kash Rood. Its waters are salt or brackish, shallow, and in many places covered with reeds. Height above the sea, 1545 feet; length, 70 miles; breadth, 20 miles; area, 1600 square miles.

(i.) *Lake Bahktegan*, in Persia, receives at its western extremity the Bündemir, after a course of 150 miles. Its waters are very salt, and it has no outlet. Length, 65 miles; breadth, 10 miles.

(j.) *Lake Urumiah*, or *Shaher*, in Persia, west of the Caspian Sea, receives several rivers, but has no outlet. Its waters are very salt. Height above the sea, 4000 feet; average depth, 12 feet; length, 87 miles; breadth, 25 miles; area, 1735 square miles.

(k.) *Lake Van*, in Armenia, is a salt lake, and has no outlet. It abounds in fish. Height above the sea, 5460 feet; length, 80 miles; extreme breadth, 50 miles; area, 1414 square miles.

(l.) *Lake Gotcha*, or *Sveng*, in Georgia, yields fine fish. Height above the sea, 6370 feet; depth, 1500 feet; length, 45 miles; breadth, 20 miles.



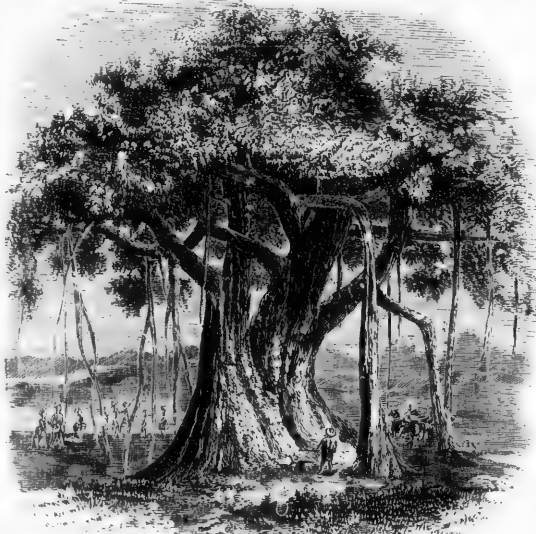
(m.) **The Dead Sea**, or *Bahr Lut*, in Syria, receives the Jordan at its northern extremity, but has no outlet. Its waters are intensely salt, bitter, and nauseous. They contain 24 per cent. of saline ingredients. Its depth towards the north end is 1308 feet, and towards the south, 104 feet. It is the lowest known lake, being 1312 feet below the level of the sea; length, 46 miles; extreme breadth, 10 miles; average breadth, 7 miles; area, 495 square miles.



THE BUFFALO OF INDIA.

lark, falcon, parrot, swan, goose, duck, flamingo, pelican, bird of paradise, lyre-bird, pheasant, bustard, peacock, and ostrich.

**11. Vegetation.**—The chief products are rice, tea, coffee, cinchona-bark, myrrh, cocoanuts, dates, sago, ginger, cinnamon, oranges, pepper, sugarcane, cotton, indigo, opium, sandal-wood, teak, bamboo, gamboge, laurel, banyan, and elastic gum trees.



THE BANYAN TREE.

**12. Minerals** are very abundant. *Coal* is found in Asia Minor, India, Burmah, China, Siberia, and Japan; *Gold* and *Silver* are found in the Ural and Altai Mountains, also in China, Tibet, Further India, and Japan; *Iron* is found in the Altai and Ural Mountains; *Lead* in the Altai Mountains and China; *Tin* in China, Further India, and Japan; *Copper* in the Ural Mountains and Japan; *Mercury* in China, Tibet, Ceylon, and Japan; *Platinum* in the Urals; *Diamonds* and other precious stones in Hindostan, Burmah, Ceylon, and the Ural and Altai Mountains.

**13. Climate.**—Three-fourths of Asia lie within the north temperate zone, about one-eighth in the torrid zone, and the remainder in the north frigid zone. In the north the cold is intense for nine months of the year. The high plateaus of the central region are cold and dry. In the south, the climate is tropical. Eastern and Southern Asia, which receive the winds from the oceans, are well watered. The periodical winds are called monsoons, and their change is accompanied by violent storms.

**14. Inhabitants.**—Asia is occupied chiefly by three of the five great races of mankind, the Mongolian (including the Malays), the Melanocheiroi, and the Xanthochroei. The Malays occupy the Malay peninsula. The Mongols occupy part of Asia Minor, and the whole of Asia north of the Paropamisus, Hindukush, and Himalaya Mountains, and east of the Brahmaputra. The Melanocheiroi occupy South-western Asia, including Arabia, Syria, Persia, Afghanistan, Belucistan, and Northern India, as far as the Ganges; the Xanthochroei occupy Transcaucasia, Armenia, and Kafiristan. The Dravidian races of Southern India belong to the Australoid family. The most densely peopled countries are Hindostan and China.

**10. Animals.**—The most important animals of Asia are the elephant, rhinoceros, tapir, wild boar, horse, ass, lion, tiger, leopard, ounce, panther, hyena, reindeer, bear, camel, zebu or Indian ox, buffalo, yak, gazelle, ibex, deer, goat, sheep, monkey, sable, ermine, and fox. Reptiles of various kinds, as the crocodile, python, anaconda, cobra da capello are abundant. Among birds may be named the eagle, vul-

## TURKEY IN ASIA.

Size, equal to a square of 841 mi.



THE BOSPHORUS.

**1. Noted For.**—Turkey in Asia is noted for having been the scene of nearly all the events recorded in the Holy Scriptures.

**2. Position and Extent.**—Asiatic Turkey reaches from Constantinople to the Persian Gulf, and includes Asia Minor or Anatolia; Armenia; Kurdistan or Assyria; Syria, including Palestine; Al-Jezireh or Mesopotamia; Irak Arabi or Babylonia; Arabistan, including Hedjaz and part of Yemen; and the district of El Hasa, on the western side of the Persian Gulf.

**3. Asia Minor** forms the peninsula lying between the Black and Mediterranean Seas. Its surface is mountainous. Taurus, at the south, is the principal chain. The island of Cyprus lies off the southern coast. The chief products are fruits, grain, coffee, tobacco, valonia, and goats-hair.

**4. Chief Cities of Asia Minor.**—Smyrna (150,000), the capital of Asiatic Turkey, ranks next to Constantinople, the capital of the empire, and is the chief seat of commerce; Scutari is opposite Constantinople; Angora is famous for its silky-haired wool; Sinope, on the Black Sea, is noted for its commerce; Trebizond is an important port on the Black Sea, near a fertile district; Tarsus is the birthplace of the Apostle Paul; Konyeh is a place of trade, and Sivas has woollen manufactures.

**5. Armenia** lies between Asia Minor and the Russian province of Georgia. The famous mountain of Ararat is on its eastern boundary: near its base the east branch of the River Euphrates takes its rise. To the south is Lake Van. Kurdistan lies south of Armenia, and east of the Tigris.

**6. Chief Cities of Armenia and Kurdistan.**—Erzeroum (60,000), on a lofty plain, is a centre of commerce; Diarbekir, on the Tigris, has copper works and cotton and silk manufactures; Van, on Lake Van, a fortified city, with an active trade.

**7. Syria** lies south-east of Asia Minor, and includes the sacred land of Palestine. The surface is mountainous: the chief range is Lebanon, which runs southward into Palestine. The soil is generally fertile. Grain and fruits are the chief products.

**8. Chief Cities of Syria and Palestine.**—Aleppo (70,000), noted for its silk; Damascus (150,000), the capital, an ancient and famous city, with its reputation for its silk; Jerusalem (25,000), the holy city; Acre, famous in history, and for its destruction by the British fleet in 1840.

**9. Al-Jezireh** is the northern portion of the plain between the Euphrates and Tigris; Irak Arabi, the southern portion, extends to the Persian Gulf.

**10. Chief Cities.**—Mosul, on the Tigris, opposite the ruins of Nineveh; Bagdad, on both sides of the Tigris, manufactures silk, cotton, and leather goods, and has an extensive caravan trade; Basra, on the Shat-el-Arab, is the centre of trade with India.

**11. Arabistan**, or Turkish Arabia, extends along the east coast of the Red Sea to the Gulf of Aden.

**12. Chief Cities.**—Mecca, 60 miles from the Red Sea, the capital of Hedjaz (the land of pilgrimages), was the birthplace of Mohammed; Medina, the seat of Mohammed's Empire, whither he fled from Mecca in A. D. 622. It contains his tomb. Sana, the capital of Yemen, Mecca, noted for its coffee, is its seaport.

(See Map of the Land of Canaan, Palestine, &c., on page 121.)

## ARABIA.

From *Arabs*, a level waste, or *Eber*, a wanderer. Size, equal to a square of 1105 miles.



CAMELS.

1. **Noted For.**—Arabia is noted for its sandy deserts, and for having been the scene of Mohammed's career.

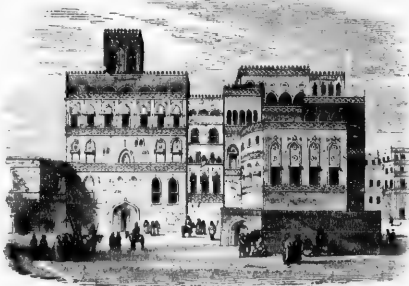
2. **Position.**—It lies chiefly between the Red Sea and the Persian Gulf.

3. **Physical Features, etc.**—The interior is a mountainous desert plain, with here and there an oasis. Between the coast-line and the mountain-ranges are numerous fertile valleys. The celebrated Mount Sinai is at the head of the Red Sea. There are no rivers of any importance. El Hasa, Yemen, and Hedjaz, are tributary to Turkey; but the other parts are either governed by Imaums, or by the Sheiks (or chiefs) of the Bedouin tribes. The Bahrein Islands in the Gulf of Persia are noted for their pearl fisheries.

4. **The Chief Products** are coffee, gums, spices, and fruits. The horses and camels of Arabia have long been famous.

5. **Divisions.**—Arabia includes Nejd, Oman, Hadraumat, El Hasa, Yemen, and Hedjaz; the last three tributary to Turkey.

6. **The Chief Cities** are Mecca and Medina, in Hedjaz; Sana and Mocha in Yemen. Aden, a strongly fortified British naval station, with Perim Island, a dependency; and Muscat, capital of Oman, at the south-east, a fortified place. It is one of the hottest places in the world. The thermometer in the shade, rarely descends below 90°; and Riyadh, the capital of the Wahabees in Nejd.



PALACE OF THE IMAM, OR PRIEST RULER, OF YEMEN, SANA.

## PERSIA.

From *Paras*, *Parvi*, or *Parsi*, an ancient name signifying clear, bright. Called *Paras* in Scripture; *Persis*, by the Greeks; and *Iran*, by the inhabitants. Size, equal to a square of 800 miles.

1. **Noted For.**—Persia or Iran is noted for its ancient greatness; and for its cutlery, silk manufactures, and pearls.

2. **Position.**—Persia is an extensive table land lying between the Caspian Sea and the Persian Gulf.

3. **Physical Features.**—The interior consists of salt deserts and marshy tracts. Between the Elburz Mountains and the Caspian Sea, and along the tributaries of the Tigris, the soil is productive.

4. **Exports.**—The chief exports are silk, carpets, attar (or otto) of roses, turquoises, and pearls.

5. **The Chief Cities** are Teheran (85,000), the capital, and Isfahan (60,000), the former capital; Shiraz or Tauris (120,000) is the chief centre of trade; Meshed (70,000) is noted for its velvet manufactures, and for a splendid mausoleum, which contains the remains of Imam Reza and Haroun-al-Raschid; Bushire and Gombroon are seaports on the Persian Gulf.

## AFGHANISTAN AND BELUCHISTAN.

*Stam* in Persian means land; an Afghanistan, Land of the Afghans. Size, equal to a square of 625 miles.



THE CITADEL OF KABUL.

1. **Noted For.**—Afghanistan and Beluchistan are noted for their mountain passes, and for their warlike inhabitants.

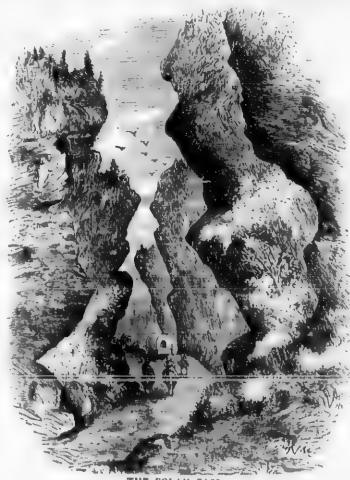
2. **Position.**—These two countries lie to the east of Persia, and are bounded on the north by the great range of Hindu-Kush; on the east by the Sulimani and other mountains, which limit the plains on the west bank of the Indus; on the south there is no definite boundary; on the west from the intersection of the Lake of Seistan.

3. **Physical Features.**—From Afghanistan to India the outlet is through the Khyber Pass. The principal rivers of Afghanistan are the Kabul, (the ancient Kophes,) and the Helmand, which falls into the salt-lake Seistan by various mouths; its length is about 615 miles. Beluchistan has no rivers of any note. The surface is in general mountainous. The valleys are fertile, and the climate is variable; over the northern part of the country the winter is very severe, in Kabul the snow lies for two or three months, and the thermometer falls considerably below zero (Fahrenheit). The summer heat through the Khorasan part of the country is very great and the nights are very oppressive, but at Kabul the heat is tempered by breezes from the Hindu-Kush, and the nights are tolerably cool. The Hala Mountains, which form the Eastern boundary, rise to the height of 11,000 feet, and separate Beluchistan from British India. The Bolan Pass, between the Suliman and Hala Mountains, is a long defile, extending from Dadur to Quetta, its south and north entrances, a distance of 55 miles, and rising from 800 feet to 5,800 feet above the sea.

4. **Exports.**—The chief exports from or through Afghanistan are wool, horses, silk, fruit, madder, and assafoetida. Afghanistan is rich in minerals, but they are not profitably used. In cultivated districts the chief trees are the mulberry, ash, willow, poplar, and occasionally the plane. All European fruits are produced in great abundance and variety.

5. **The Chief Cities** of Afghanistan are Kabul (60,000), the capital (it is supposed to excel all other cities in the variety and excellence of its fruits), Kandahar, Ghazni, and Herat; and of Beluchistan, capital Kelat.

6. **Kafiristan** is a wild and mountainous but fertile country, lying between north-east Afghanistan and Kashmir. Area, about 7,000 square miles. It has been very rarely visited, and very little is known about it. Its people, who are called the Shah-Posh Kafirs, belong to the Xanthochroic family, having light hair, fair complexions, and blue eyes. They are hostile to their Mohammedan neighbors, by whom their country has been frequently invaded, but never conquered. *Candlish* (about 2500) is the most important town.



THE BOLAN PASS.

## HINDOSTAN, OR INDIA.

From the Persian *hindoos*, black, the natives being darker than the Persians, and *stan*, a country; or from the river *Indus* and *stan*. Size, including Ceylon, but excluding British Burmah, equal to a square of 1233 miles.

1. **Noted For.**—Hindostan is noted for being the most valuable dependency of Great Britain, and for its rich commercial products.

2. **Position and Extent.**—It extends from the Hala Mountains in the west to the Patkoi Mountains in the east; and from the Himalaya Mountains at the north, to the Indian Ocean at the south.

3. **The Physical Features** of this vast peninsula are on a stupendous scale. The Himalaya Mountains are the highest range in the world; while the River Ganges, with its numerous tributaries, is on a scale no less grand and noble. Besides the Himalaya Mountains at the north, the Eastern and Western Ghauts, following the coast lines, enclose the southern part of the peninsula of Hindostan; while a central range, the Vindhya, separates the waters of the Ganges and of other rivers flowing into the Bay of Bengal from those of the numerous rivers flowing into the Indian Ocean. The rivers and the mountain ranges naturally divide India into four great areas, as follows:—

(1) The valley of the *Ganges*, sloping eastward along the base of the Himalayas.

(2) The valley of the *Indus*, sloping southward from the Hindu-Kush Mountains, and forming the western boundary of India.

(3) The central mountain-district, sloping south-westward from the centre, and drained by twenty rivers, of which the *Nerbudda* and the *Taptée* are the chief.

(4) The Deccan, watered by eighteen rivers, southward of the Nerbudda and eastward of the Malabar Ghauts, the principal being the *Godavery* and the *Kistnah*.

4. **Climate.**—On the Himalaya slopes the climate is temperate and agreeable, but toward the south it becomes hot and oppressive. There are but two seasons, the wet and the dry, varied by the periodical monsoons.



HANGING OF THE MONSOON.

5. **Political Divisions.**—India is divided into **British Possessions**, **Native States**, **French Possessions**, and **Portuguese Possessions**.

(a.) The British Possessions in India are divided into nine administrations or Provinces, viz.: Bengal, North-West Provinces (including Oude), Punjab, Central Provinces, Bombay, Madras, Detached Provinces under the Governor General, Assam, and British Burmah. Assam and British Burmah are in Further India. The Island of Ceylon is under a separate government.

(b.) The Native States are divided into two classes: Independent and Dependent or Feudatory. There are two independent States and about 800 dependent States, of which only about 200 are of any importance.

(c.) The French Possessions are *Chanderagore*, on the Hoogly, above Calcutta; *Yanaon*, at the mouth of the Godavery; *Pondicherry* (the capital of the French settlements on the Coromandel coast), south of Madras; *Karikal*, at the mouth of the Cauvery; and *Mahé*, on the Malabar Coast.

(d.) The Portuguese Possessions are *Goa* on the west coast, capital *Panjim*; *Daman*, a seaport, north of Bombay; and *Diu*, a small island off the south coast of the Peninsula of Guzerat.

6. **Bengal** occupies the rich valleys of the lower Ganges and Irahmaputra Rivers and a seaboard district extending to the south shore of Lake Chilka. The chief products and exports are rice, opium, sugar, tea, spices, indigo, tobacco, silk, cotton, flax, and hemp.



GOVERNMENT HOUSE, CALCUTTA.

7. **Chief Cities.**—*Calcutta* (776,000), the capital of British India, and, next to Canton, the greatest emporium in the East, is situated on the Hoogly River, one of the outlets of the Ganges. The public buildings are handsome, and the literary and scientific institutions numerous. The city is defended by Fort William, the largest fortress in India. *Moorshedabad*, on the Hoogly, the former capital of Bengal; *Scrampore*, the head-quarters of the Baptist Missions; *Bardwan* has coal and iron mines. *Puri*, near Lake Chilka, contains the temple of Juggernaut. *Patna* (159,000), on the Ganges, has an extensive trade.

8. **The North-West Provinces** extend along the basins of the Ganges and Jumna, from the confluence of the Gogra with the former to the Himalayas. *Oude*, or *Oudh*, lies to the south-west of Nepal. Its chief rivers are the Goomtee and the Gogra. It is celebrated for wheat and salt-petre.

9. **Chief Cities.**—*Allahabad* \* (144,000), the capital, at the confluence of the Jumna and Ganges, is a sacred city of the Hindoos; *Cawnpore* (123,000), the scene of the massacre of Europeans in 1857; *Benares* (175,000), the Hindoo capital and the principal of the sacred cities; *Agra* (149,000), the former Mogul capital, containing the Taj Mahal, the finest mausoleum in the world.



MOHAMMEDAN MOSQUE, CAWNPORE.

*Lucknow* (285,000), the former capital of Oude, on the Goomtee, famous for its defence by Sir John Inglis, and its relief by Sir Henry Havelock, in the Sepoy rebellion.

10. **Punjab**, or **Five Rivers**, so named from the five rivers which form the Punjab, the great tributary of the Indus. It lies north of Sind, Rajputana, and the North-West Provinces. Salt is the chief mineral. Kashmere shawls are extensively manufactured.

11. **Chief Cities.**—*Lahore* (258,000), on the Ravee, is the capital; *Delhi* (161,000), on the Jumna, once the Mohammedan capital of India; *Aurritsar* (142,000), between the Sutlej and the Ravee, is the sacred city of the Sikhs; *Peshawar* (58,000), on Cabul River, is a fortified town, eighteen miles from the Khyber Pass; *Multan* (51,000), on the Chenab River, is a commercial city.

12. **The Central Provinces** occupy the district watered by the Mahanuddy, by the tributaries of the Godavery on the left hand, and by the upper course of the Nerbudda. The chief products are cotton, wheat, opium, and silk. Coal and iron are the principal minerals.

13. **Chief Cities.**—*Jubbulpur* (55,000), the capital, has a large trade in cotton; *Nagpur* (84,000), City of Serpents, has extensive manufactures and a large banking business; *Chanda* has coal and iron in the neighborhood.

14. **Bombay** includes the province of *Sind*, lying in the southern valley of the Indus; and, farther south, parts of *Guzerat* and *Khandesh*. The chief products are cotton, salt, opium, rice, coconuts, pepper, teak, indigo, wool, and silk.

15. **Chief Cities.**—*Bombay* (644,000), (Portuguese for good harbor), the capital, is on an island at the sea coast, from which railways radiate to the north and the south. Its harbor is the finest in India, and its trade extensive. *Poona* (110,000), east of the Ghauts; *Surat* (107,000) on the Taptée; and *Ahmedabad* (117,000), north of the Gulf of Cambay.

16. **Madras** occupies the southern part of India, and includes the provinces of Northern *Circars*, the *Carnatic*, and *Malabar*. The climate is very hot, and the soil generally is not so productive as in other parts of India. The chief products are sugar, silk, cotton, teak, iron, and salt.

\* **NOTE.**—The termination *abad*, *palam*, *poore* or *poor*, all mean place or city; thus Allahabad, Place of the God; Singapore, City of the lion. *Gunge* means a marked place; *gherr*, mountain; *and* or *uddy*, river; *sul*, blue; *maha*, great.



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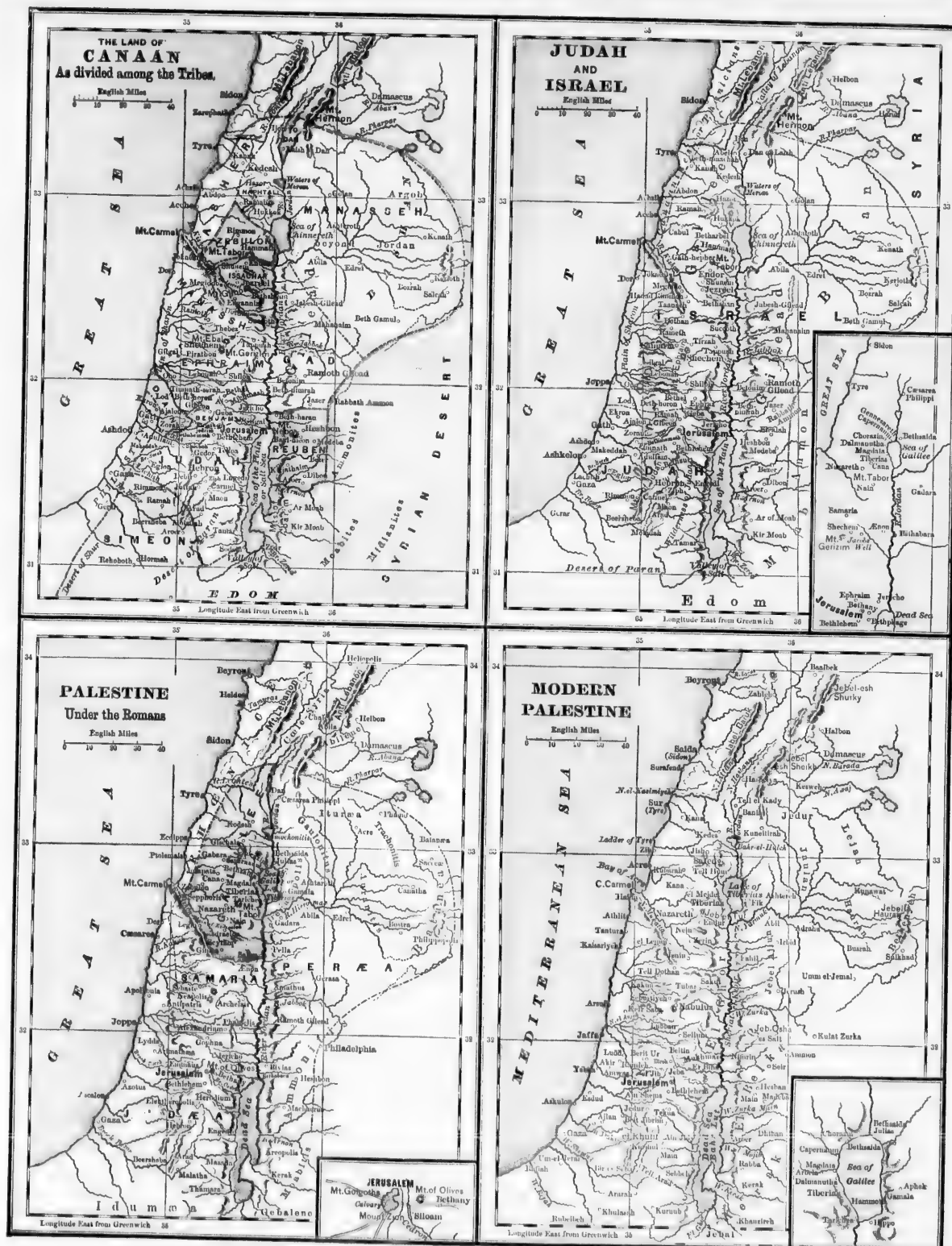
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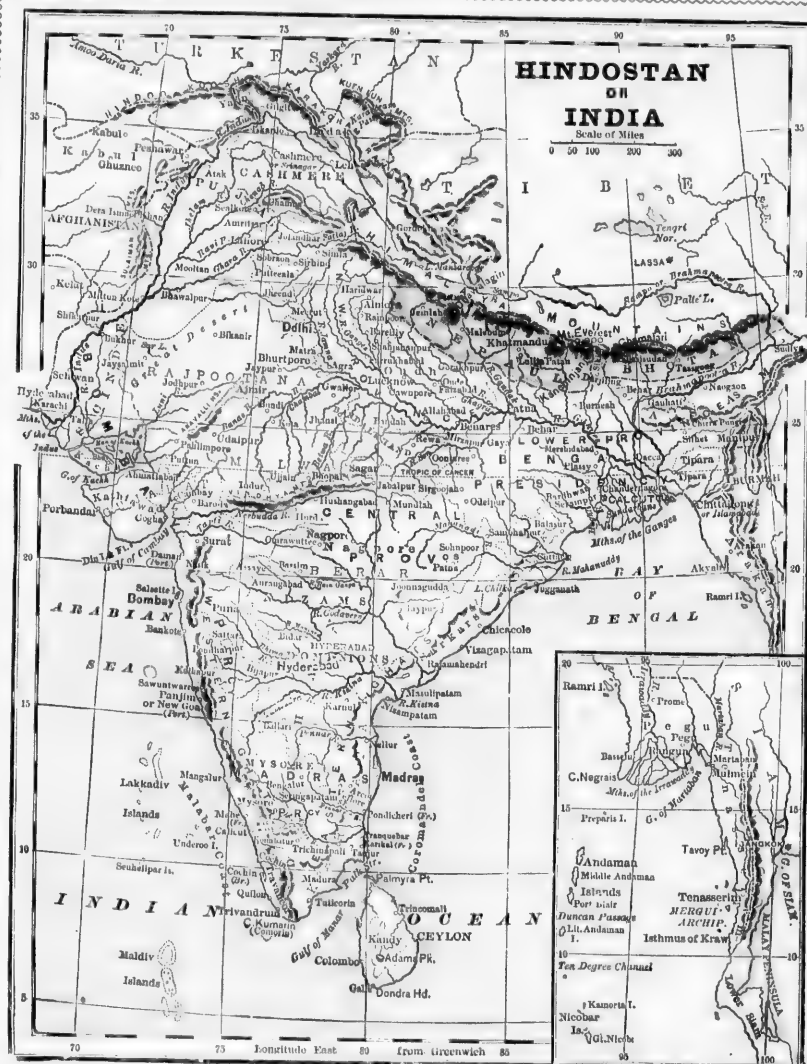
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17. **Chief Cities.**—**Madras** (398,000), the capital, on the Coromandel coast, has no harbor, and the surf being very great, the landing is effected from the roadstead in light boats. Fort St. George defends the city. A railway connects Arcot with Madras. **Tanjore** rivals Benares in its Hindu temples; **Trichinopoly** (77,000) is famed for jewelry, hardware, and cheroots.

18. **The Detached States.**—**Mmere**, at the north end of the Aravalli Mountains. **Ajmere** is the capital. **Berar**, south-west of the Central Provinces. **Ellichpore**, the capital, is a cotton depot. **Mysore**, in the south of the Deccan. The chief products are grain, coffee, mulberry, and silk. **Mysore** (58,000), the capital, is built chiefly of teak; **Bangalore** (143,000), is the largest city. **Coorg** lies south-west of Mysore. The chief product is coffee. Capital, **Merkara**.

19. **Assam** formed part of Bengal until 1874, when it was made a separate Province. Tea is the principal export. Capital, **Gowhati**.

20. **British Burmah.**—See Further India.

21. **Native States.**—**Nepal** and **Bhotan** are native independent States, both lying along the southern slope of the Himalaya Mountains. The surface of both is mountainous, but the valleys are fertile. **Khatmandu** is the capital of Nepal, and **Tasisudon**, of Bhotan.

22. **Dependent or Feudatory States.**—The most important of these are the following:

**Hyderabad** or **Nizam's Dominions**, in Central India; including the cities of **Hyderabad**, the capital, **Arungabad**, and **Golconda** (noted for its diamond mines).

**Baroda** or **Gulicowar's Territory** between Sind and Bombay Proper. Capital, **Baroda**, a great railway centre.

**Kashmere** (noted for its rich shawls), between the Punjab and Kashgar, and including Little Tibet, and Ladakh. Capital, **Kashmere** or **Serinagar**.

**Rajputana**, composed of eighteen States, east of Sind, chiefly desert, the most important being **Jeypur**, **Udipur**, and **Marwar** or **Jodhpur**.

**Gwalior** or **Scindia's Dominions**, south of Agra. **Gwalior**, its capital, is one of the seven sacred cities of the Hindoos, and the first meridian of their geographers.

**Indore** or **Holkar's Territory**, along the Vindhya Mountains. Capital, **Indore**.

**Bhopal**, south-west of Gwalior. Capital, **Bhopal**.

On the Malabar Coast are **Cochin**, capital, **Trichur**; and **Travancore**, capital, **Trivandrum**.

**Sikkim** lies between Nepal and Bhotan; **Tipperah** and **Manipore** between Bengal and Burmah.

23. **British Islands of India.**—**Ceylon** lies off the south-east coast of Madras. It is compact, and has few coast indentations. The interior is mountainous; but there are many beautiful and fertile valleys. It is called *Singhala* by the natives. Buddhism is the prevailing religion. It is a Crown colony. Area, 24,702 square miles; population, about 2,755,557. The chief products are rice, coffee, coconuts, and cinnamon. Its pearl fishery, off the north-west coast, is valuable and very extensive.

24. **Chief Cities.**—**Colombo** (100,000), the capital, **Point de Galle**, a fortified packet station, **Trincmale**, and **Candy**.

25. **The Laccadives** lie off the Malabar coast, and the **Maldives** (Thousand Isles), a series of circular groups of coral islands, lie south of the Laccadives. They are nominal dependencies of Ceylon. Chief exports: coconuts and cowrie shells.

26. **The Chagos Archipelago** contains a number of low coral-reefs and islands, which lie south of the Maldives and of the Equator. They are dependencies of Mauritius. Products: coconuts and fruit.

27. **Other British Islands.**—**Andaman** and the **Nicobar Islands**, lie off the Malaysian Peninsula. The Andamans are a penal colony.



BUDDHIST PRIEST AND ATTENDANTS, CEYLON.

FURTHER INDIA.

Size, equal to a square of 943 miles.

| Name.                                | Area.   | Population. | Capital or Chief City. | Pop. of Capital. |
|--------------------------------------|---------|-------------|------------------------|------------------|
| British Burmah.....                  | 88,556  | 3,010,864   | Rangoon..              | 108,000          |
| Straits Settlements.....             | 1,445   | 308,097     | Singapore.             | 161,000          |
| Burmah.....                          | 192,000 | 3,500,000   | Mandalay.              | 90,000           |
| Siam (including Laos and Malaya).... | 336,000 | 6,000,000   | Bangkok.               | 255,000          |
| Anam.....                            | 220,000 | 12,000,000  | Hue.....               | 100,000          |
| Cambodia.....                        | 30,000  | 900,000     | Pnompong               | 20,000           |
| French Cochín China.....             | 21,717  | 1,536,860   | Saigon.....            | 180,000          |
|                                      | 889,718 | 27,314,621  |                        |                  |

1. **Names.**—Further India is sometimes called India beyond the Ganges, the Indo-Chinese States, or the South-Eastern Peninsula.

2. **Position.**—It extends from India and the Bay of Bengal on the west to the Chinese Sea on the east; and from Thibet and China on the north to Singapore on the south.

3. **Physical Features.**—The surface is traversed by mountain ranges, running from north to south, between which large rivers run southward.

4. **Divisions.**—British Possessions, Burmah, Siam, Anam, Laos Country, Cambodia, French Cochín China, and Malaya.

5. **The British Possessions** are British Burmah and the Straits Settlements.

6. **British Burmah** is a province of British India, and includes the strip of country between the Bay of Bengal and the Aracan Yoma range, which ends at Cape Negrais; the lower courses of the Irawady, Sittang, and Saluen; and the coast southward from the Gulf of Martaban to the 10th parallel of N. Lat. It is divided into **Aracan, Pegu, and Tenasserim.** Area, 88,556 square miles.

7. **Chief Towns.**—**Rangoon** (108,000), in Pegu, on the eastern mouth of the Irawady, is the capital of British Burmah. **Akyah** is the capital of Aracan. **Prome** on the Irawady, is a large town. **Moulmein**, at the mouth of the Saluen, is an important seaport.

8. **The Straits Settlements** include: **Penang** or **Prince of Wales Island, Wellesley Province**, on the mainland, separated from Penang by a strait from 2 to 10 miles wide; **Malacca**, on the west side of the Malay Peninsula; and **Singapore**, an island south of the Malay Peninsula. The Straits Settlements are a Crown colony.

9. **Chief Towns.**—**Georgetown**, the capital, in Penang; **Malacca**, in Malacca, contains a British garrison; **Singapore** (56,000), in Singapore, is a place of great trade.

10. **The Empire of Burmah**, formerly the most extensive and powerful State in Further India, occupies the northern basin of the Irawady River. The surface is varied, but the soil is generally fertile. Rice is the chief crop. The other products are cotton of short staple, indigo, yams, sweet potatoes, tobacco, capsicums in great quantities, gourds, oil plants, bananas, and other fruits. Horses, oxen, buffaloes, elephants and goats are used for draught. Area, 192,000 square miles; population, about 3,500,000.

11. **Chief Towns.**—**Mandalay**, the capital, is situated on the right bank of the Irawady. **Mouchoho**, the former capital, is near a large lake. **Ava**, is on the Irawady River, 400 miles from its mouth; **Bhamo**, farther north, is the seat of trade with China.

12. **The kingdom of Siam**, including **Northern Malacca**, lies south-east of Burmah, and occupies the plain watered by the Meinam. The surface is mountainous, with numerous fertile plains and valleys. The soil is highly productive, and minerals are abundant. Area, about 250,000 or 300,000 square miles; population probably about 6,000,000.

13. **Chief Town.**—**Bankok** (255,000), the capital, is a place of large trade. Many of the houses are built upon rafts in the river.

14. **The Empire of Anam** lies on the eastern coast, and includes **Tonquin** and **Cochín China**. It is fertile and well watered. The population is variously estimated at from 6,000,000 to 15,000,000. **Hue** (about 10,000) is the capital, but **Kesho** or **Hanoi** (150,000), the capital of Tonquin, is the largest city.

15. **The Laos or Shan States** lie between Burmah and Siam. They are mountainous, and are rich in minerals and valuable timber. Some of their tribes are subject to China, some to Siam, and some to Burmah, but many of them are independent. The chief town is **Changmai**.

16. **Cambodia** lies between Siam and Cochín China, extending inland from the sea coast to the Cambodia or Mekong. It contains the **Tule Sap** or Great Lake. The soil is fertile. The chief products are rice, coffee, cotton, silk, sugar, and gamboge. It has been a French protectorate since 1863. **Pnompong** is the capital.

17. **French or Lower Cochín China** consists of three provinces, which extend up the Cambodia for 130 miles from its mouth. The colony was established in 1862. Rice is the chief product. **Saigon** (180,000) on the Saigon River, is the capital.

18. **Malaya or Independent Malacca** occupies all the Malay Peninsula, except British Malacca. The Malay Peninsula is a long narrow country extending to the south. The inhabitants are chiefly engaged in navigation. Some of the tribes are dependent on Siam, but many of them are under their own rajahs. The principal States are Perak and Johore in the south. **Perak** is the chief town.

EMPIRE OF CHINA.

From *Tsin*, or *Tchín*, the ancient name of a south-west part of China. Size, equal to a square of 2137 miles.



GREAT WALL OF CHINA.

1. **Noted For.**—China is noted for its vast population, its Great Wall, its tea plant, and its porcelain.

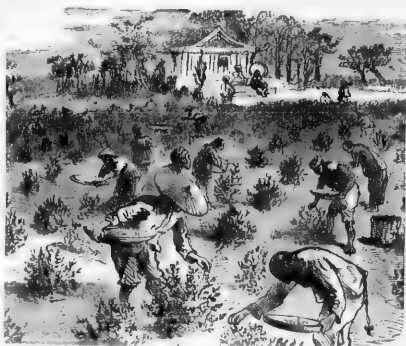
2. **Extent.**—The Chinese empire embraces (1.) *China Proper*; (2.) *Mongolia*, including *Dzungaria*; (3.) *Mantchooria*; (4.) *Corea*; (5.) *Tibet*, and *Chinese Turkistan* or *Kashgaria*.

3. **Physical Features.**—The rivers and the mountain ranges of this extensive empire naturally divide it into five great areas, viz.: (1.) *China Proper*, situated in the valley of the Hoang-ho and Yang-tse-kiang Rivers, and enclosed by the Yungling, Pe-ling and Nan-ling Mountains; (2.) The mountainous region of *Mantchooria* and *Corea*, south of the Amoor, and lying between the Khinghan Mountains and the Sea of Japan; (3.) *Mongolia*, lying between the Altai Mountains and China Proper, and including part of the Great Steppe of Gobi; and (4.) *Tibet*, lying between the Himalayas and the Kuen-Lun Mountains; and (5.) *Kashgaria*, between the Kuen-Lun and the Tian-Shan mountains.

4. **China Proper** (eighteen provinces) is isolated from the rest of the empire by the Great Wall at the north and the mountains at the west. The country is densely populated. By means of its rivers and canals, it has abundant facilities for internal communication.

5. **Products.**—Tea and rice are the chief natural products. Silk, porcelain, nankeen, fans, carved ivory, lacquered ware, and gongs, are the chief industrial products.

6. **Chief Cities.**—**Pekin** (1,000,000), the capital, is situated near the Peiho River. It consists of two walled towns, — the Chinese and the Tartar. The former is the seat of commerce; the latter, of the imperial government. **Tientsin**, on the Peiho, is noted for its British and Chinese treaty of 1855. **Nankin**, on the Yang-tse-kiang, is noted for its porcelain tower, and for its silk, cotton (nankeen), and paper manufactures. **Canton**, on the Bocca Tigris (estuary of the Canton River), was the first Chinese port opened to foreigners, and is the seat of the European factories. **Whampoa**, a safe anchorage on the Canton River, twelve miles from Canton. **Shanghai** and **Ningpo** lie south-east of Nankin, and both have extensive trade. Twenty-four ports, known as treaty ports, are open to foreign trade; of these, fourteen are



TEA CULTURE IN CHINA.

\* *Pe* means north; *nan*, south; *tung*, east; *see*, west; and *ho* and *kiang* mean river; *shan*, mountain; *ho*, lake.

primary, or consular ports, and ten are secondary. The fourteen first-class are Canton, Amoy, Foo-chow-foo, Ningpo, Shanghai, Swatow, Tientsin, Chefoo, Han-Kow, Kin-Kiang, Newchwang, Wenchow, Woohoo, and Ichang.



CHINESE MANDARIN, HIS WIFE, CHILD, AND SERVANT.

7. Tibet lies to the north of India, and between the Himalaya and Kuen-Lun Mountains. It occupies a high plateau intersected by ravines and valleys, lakes, and rivers. The climate is cold. Cattle grazing is the chief pursuit. The domestic animals are the Tibet goat, from whose fine hair the celebrated Kashmir shawls are made, the yak, the musk-deer, the sheep, &c. Tibet is divided into Eastern and Western Tibet.

Lassa or Lhasa, the capital, in the eastern province, is the residence of the Dalai-Lama of the Buddhist worship, and Shigatse, the capital of the western province, of the Bogdo-Lama.

8. Mongolia extends westward from the Kienhan Mountains to Tibet, Kashgaria, and Russian Asia. In the interior it is chiefly desert. Manchuria, on the west coast, is mountainous and well watered. Corea is a large peninsula jutting out between Japan and China proper. It is tributary to China and Japan. The province of Kuldja was restored to China in 1879.

9. Chief Cities.—Urga or Kurin, on the Tula, the capital of Mongolia, is the residence of the Lama of the Mongols. Karakorum, on the Jamir, was the capital of Genghis Khan. Ill or Kuldja, the capital of Kuldja, has great trade with Russia. Kirinoala, the capital of Manchuria, is situated on the Soongari. Saghalien, on the Amoor, is a place of large trade in furs. Ningkitao, on the Han-Kiang, is the capital of Corea. Fusankai is a Korean port open only to Japan.



STREET IN CHINA.

### CHINESE TURKESTAN OR KASHGARIA.

1. Position.—Kashgaria lies to the east of Independent Turkestan, from which it is separated by Pamir Plateau. The Kuen-Lun Mountains separate it from Tibet, and the Thian-Shan from Dzungaria. It was, until a recent date, an independent state, governed by a sovereign with the title of Emir.

2. Physical Features.—The eastern part of Kashgaria is desert. The river Yarkand or Tarim flows through it from west to east, and receives many tributaries on both banks before it reaches Lake Lob Nor.

3. Products.—Cotton, silk, wheat, and rice, are the chief products.

4. Chief Cities.—Kashgar, the capital, has manufactures of carpets and cotton goods. Yarkand (190,000), the commercial capital, has 60 colleges and 160 mosques. Aksu is famous for its cotton and saddlery.

### FOREIGN POSSESSIONS IN CHINA.

1. Hong Kong.—The British island of Hong Kong is 75 miles south-east of Canton. Its length is 10 miles, and its breadth  $7\frac{1}{2}$ . It was ceded to Great Britain in 1843, as part indemnity for the expenses of the war in 1841-42. It is chiefly composed of lofty barren rocks. Since it became a British colony, its commercial value is very great.

Victoria, the chief town, is on the north side of the island. A part of Cowloon, on the main land north of Macao, was ceded to the British as part indemnity for the war of 1860.

2. Macao.—The Portuguese seaport of Macao occupies a peninsula seventy miles south of Canton. It is a healthy and picturesque town, and is well fortified. The Emperor ceded it, in 1586, to the Portuguese, in return for their assistance against pirates. Camoens, the Portuguese poet, here composed his poem of the Lusiad.

### INDEPENDENT TURKESTAN.

Size, equal to a square of 500 miles.

1. Position.—Turkestan lies east of the Caspian Sea, and north of Persia. It is chiefly an immense sandy plain sloping westward to the Aral Sea, into which its chief rivers empty themselves. This sea is saltish, and is gradually decreasing in size. The climate is variable, and extremes of heat and of cold are experienced. The river districts are fertile. Silk, cotton, wheat, barley, and rice, are the chief products.

2. Civil Divisions.—Independent Turkestan consists of a number of states called Khanates, of which Bokhara and Khiva are the chief. The Khanates of Bokhara and Khiva, though nominally independent, are really subject and tributary to Russia.

3. Chief Cities.—Bokhara is a place of extensive trade. Khiva is the great slave market of Turkestan. Merv is situated in an oasis in the midst of a barren region.

### RUSSIA IN ASIA.

Size, excluding Kuldja, equal to a square of 3,490 miles.

1. Noted For.—Russia in Asia is noted for its vast extent and varied climate, its mineral wealth, and its Siberian penal mines.

2. Position and Extent.—This territory occupies the whole northern part of the continent, and extends from the Ural Mountains to the North Pacific Ocean. Russia in Asia is divided into four parts, viz.: (1.) Western Siberia; (2.) Eastern Siberia, (3.) Russian Central Asia; and (4) Trans-Caucasia.

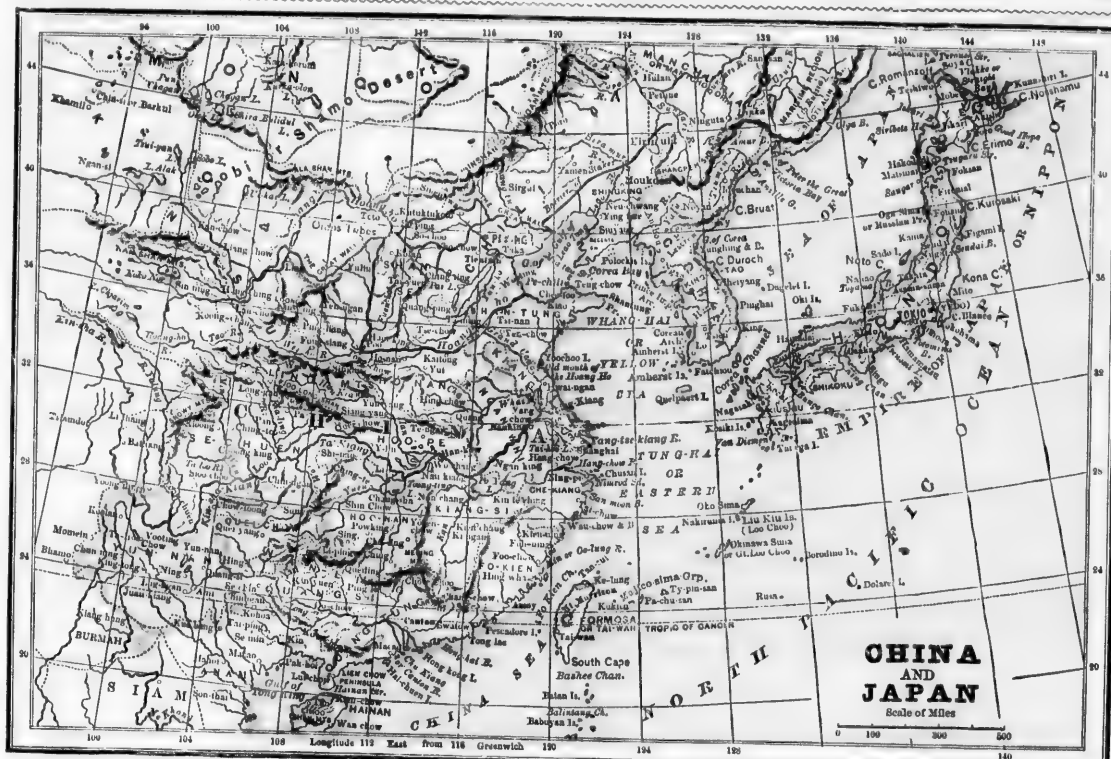
3. Siberia lies in the great northern slope of Asia. The Altai Mountains, at the south, form the water-parting which separates the rivers Obi, Yenisei, and Lena, flowing northward, from those flowing southward. Area, 4,824,561 square miles; population, about 3,440,000. It is divided into two parts, viz.: Eastern and Western Siberia. Its surface is one vast plain or a succession of steppes, sloping to the Arctic Ocean. The climate is severe, and the soil generally barren, but its value consists in the abundance of its metals and furs. It has long been a place of banishment for Russian offenders, who are condemned to work in the mines.

4. Chief Cities.—Tobolsk, at the junction of the Tobol and Irtysh, is the capital of Western, and Irkutsk, on the Angara, of Eastern Siberia. In Western Siberia, Tomsk, on the Tom, and Barnaul, at the confluence of the Barnaul and Obi, are mining centres. Omsk, on the Irtysh, is a military centre, and Semipalatinsk, on the same river, is a centre of trade with Dzungaria. In Eastern Siberia, Yakutsk, on the Lena, trades in furs and ivory. Nerchinsk, on a tributary of the Amoor, is in the neighborhood of silver and lead mines. Petropaulovsk (Port of Peter and Paul), on the coast of Kamtschatka, has an excellent harbor.

5. Russian Central Asia (including Russian Turkestan) is divided into ten provinces. Area, 1,283,486 square miles; population, about 4,400,000.

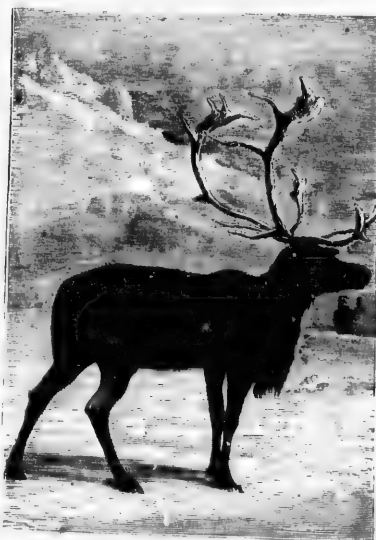
6. Chief Cities.—Tashkend (78,000), the capital of Central Asia, and the key of the Sir-Darya valley, manufactures silk, cotton, and gunpowder. Samarcand, a town of great antiquity, contains the tomb of Tamerlane. Kokan was formerly the capital of Kokan, the country of Baber, who founded the Mogul Empire in India. Marghilan is the capital of Russian Turkestan.





**CHINA AND JAPAN**  
Scale of Miles

Russell & Barthelemy, Eng'rs N.Y.



**7. Trans-Caucasia** lies south of the Caucasian Mountains, between the Black and Caspian Seas. The surface is diversified, and the soil generally fertile. In the lower valleys rice, tobacco, cotton, and indigo are produced. Area (including the Government of Kars, acquired from Turkey in 1878), 93,716 square miles; population, about 4,160,000. Trans-Caucasia is divided into ten governments or provinces. The government is chiefly military. Great religious toleration exists, and the Russians have established schools in the principal towns. The direct taxes, payable to the Russian government, amount to 325,000 silver rubles annually.

**8. Chief Places.**—Tiflis (104,000), the capital, is on the Kur. It stands in a narrow valley, and is defended by walls and several forts. The old quarter, on the bank of the river, comprises Armenian churches and large caravanserais; it is inhabited chiefly by an Armenian population, and is the principal seat of trade. Erivan and Baku are the other chief places.

**EMPIRE OF JAPAN.**

From the Chinese word *Yippon*, signifying kingdom of the rising sun, or Eastern Kingdom. Size, equal to a square of 400 miles.

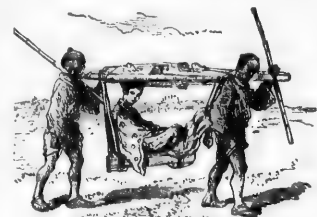
- 1. Noted For.**—Japan is noted for its insular character, its former seclusion from other nations, its jappanned ware and bronzes, and its present rapid progress.
- 2. Extent.**—This empire consists of an extended group of islands lying north and south along the east coast of Asia.
- 3. Physical Features.**—The entire group of islands is mountainous and volcanic, but in the valleys and plains the soil is fertile. The coasts are rocky and dangerous, which, with the frequent storms and whirlpools, tend to exclude Japan from the maritime commerce of the world.

**4. The Principal Islands** are *Nippon* or *Nihon* (sun source) the Japanese name for the whole kingdom, *Sikoku*, and *Kiushiu*, *Yezo*, together with three southern *Kuril Islands*. The *Loo-Choo Islands*, the *Mayo-Sima* group, and the *Bonin Islands*, are dependencies. Japan also claims a portion of *Saghalien*.

**5. Principal Straits.**—La Perouse, Sangar, Corea, and Kinko channel.

**6. Products.**—The chief mineral products are copper, iron, tin, silver, and gold. The other natural products are cotton, tea, tobacco, and silk. Porcelain, jappanned ware, and silk fabrics are important articles of native industry. In the interior, the roads are good and trade is extensive.

**7. Chief Cities.**—Tokio (1,036,771), formerly called *Yedo*, on a fine bay in the south-east of *Nippon*, is the eastern capital, and the usual residence of the Mikado or Emperor. *Saiko* (239,000), formerly called *Kioto* or *Miako*, is the western capital, and the commercial, ecclesiastical, and literary centre, and a residence of the Mikado. *Osaka* (281,000), at the mouth of the Kanagawa River, is the port of *Saiko*, and contains the Imperial mint. The second city of the Empire in point of size is *Koumamoto* (300,000). *Nagasaki*, famous for its porcelain, and *Kagoshima* (200,000), on the island of *Kiushiu*; *Matsuyama* and *Hakodadi*, on the island of *Yezo*, are important commercial ports. *Schedi* is the capital of the *Loo-Choo Islands*.



TRAVELLING IN JAPAN

## PART VI.

### AFRICA.

The *Libya* of the ancient Greeks. Hebrew *Zubim*, placed under a burning sky; Latin *Apricus*, sunny. Africa is supposed to be derived from *Africa*, colony, the name given to a spot in the north by the Phœnicians; or perhaps from *a* (used in a negative sense), and *frigus*, cold.



PRINCIPAL ANIMALS OF AFRICA.

**1. Boundaries.**—Africa is bounded on the north by the Mediterranean Sea; on the east by the Isthmus of Suez, the Red Sea, and the Indian Ocean; on the south by the Indian and Atlantic Oceans; and on the west by the Atlantic Ocean.

**2. Form.**—Africa consists of an irregular pear-shaped mass of land, with a large indentation on the west, and a projection on the east side.

**3. Position.**—It extends from  $37^{\circ} 20'$  N. Lat. to  $34^{\circ} 50'$  S. Lat., and from  $17^{\circ} 34'$  W. Long. to  $51^{\circ} 20'$  E. Long.

**4. Extreme Points.**—North, *Cape Blanco*, or *Ras al Krun*; South, *Cape Agulhas*; West, *Cape Verde*; East, *Cape Guardafui*.

**5. Extent.**—(a.) The extreme length of Africa from north to south is about 5000 miles. The extreme breadth from east to west is about 4700 miles. (b.) Its area is estimated at 11,630,400 square miles, or three times that of Europe, or is equal to a square of 3410 miles. (c.) The coast line is about 16,000 miles, or one mile of coast for 722 square miles of surface.

6. The estimated population is 205,000,000.

## 7. POLITICAL AND TERRITORIAL DIVISIONS OF AFRICA.

### I. NORTHERN AFRICA.

| Name of State or Territory. | Position.                          | Area in Eng. sq. miles. | Population (about) | Capital or Chief Place. | Lat.               | Long.              | Where Situated           | Population of Capital. |
|-----------------------------|------------------------------------|-------------------------|--------------------|-------------------------|--------------------|--------------------|--------------------------|------------------------|
| <b>BARBARY STATES.</b>      |                                    |                         |                    |                         |                    |                    |                          |                        |
| 1. Morocco.....             | In the N. W. of the Continent..... | 260,000                 | 3,000,000 ?        | Fez.....                | $34^{\circ} 6' N.$ | $4^{\circ} 53' W.$ | On the Sebou River.....  | 88,000                 |
| 2. Algeria.....             | East of Morocco.....               | 268,000                 | 2,922,500          | Algiers.....            | $36.50 N.$         | $3. 0 E.$          | Mediterranean Coast..... | 53,000                 |
| 3. Tunis.....               | East of Algeria.....               | 45,716                  | 1,500,000          | Tunis.....              | $37. 0 N.$         | $10. 7 E.$         | Mediterranean Coast..... | 125,000                |
| 4. Tripoli and Fezzan.....  | South-east of Tripoli.....         | 333,400                 | 1,010,000          | Tripoli.....            | $32.54 N.$         | $13.19 E.$         | Mediterranean Coast..... | 25,000                 |

### II. NORTH EASTERN AFRICA.

|                                  |                                     |           |            |               |            |            |                                 |         |
|----------------------------------|-------------------------------------|-----------|------------|---------------|------------|------------|---------------------------------|---------|
| 5. Egypt Proper.....             | In the N. E. of the Continent.....  | 394,361   | 5,600,000  | Cairo.....    | $30. 6 N.$ | $31.26 E.$ | Nile River.....                 | 350,000 |
| Nubia.....                       | South of Egypt.....                 | 334,000   | 1,000,000  | Khartoum..... | $15.40 N.$ | $32.50 E.$ | Conf. Blue and White Nile       | 50,000  |
| Kordofan, Darfur, Harar, &c..... | South-west of Nubia.....            | 500,000 ? | 11,000,000 | El Obeid..... | $13.10 N.$ | $30.10 E.$ | In an Oasis.....                | 50,000  |
| 6. Abyssinia.....                | South-east of Nubia.....            | 160,000   | 3,000,000  | Gondar.....   | $12.50 N.$ | $37.32 E.$ | Near Lake Dembea.....           | 6,000   |
| 7. Shoa.....                     | South-east of Abyssinia.....        |           |            | Arsebar.....  | $9.53 N.$  | $40. 0 E.$ | On tributary of the Hawash..... | 15,000  |
| 8. Adal.....                     | Bet. Abyssinia and the Red Sea..... |           |            | Assra.....    | $11.20 N.$ | $41.38 E.$ | On the Hawash River.....        | 6,000   |

### III. EASTERN AFRICA.

|                         |                                     |           |              |                 |                    |                     |                         |        |
|-------------------------|-------------------------------------|-----------|--------------|-----------------|--------------------|---------------------|-------------------------|--------|
| 9. Galla Country.....   | Bet. Abyssinia and the Equator..... | 600,000 ? | 8,000,000 ?  | Gannah, &c..... | $3^{\circ} 28' N.$ | $42^{\circ} 57' E.$ | On the Webbe River..... | ?      |
| 10. Somali Country..... | In the Southern Peninsula.....      |           |              | Berbera.....    | $10. 5 N.$         | $45. 0 E.$          | Gulf of Aden.....       | ?      |
| 11. Zanguebar.....      | South of Somali Country.....        | 300,000 ? | 10,000,000 ? | Zanzibar.....   | $6.27 S.$          | $39.33 E.$          | Zanzibar Island.....    | 80,000 |
| 12. Mozambique.....     | South of Zanguebar.....             | 400,000 ? | 2,000,000 ?  | Mozambique..... | $15. 2 S.$         | $40.48 E.$          | Mozambique Channel..... | 9,000  |
| 13. Sofala.....         | South of Mozambique.....            |           |              | Sofala.....     | $20.10 S.$         | $34.46 E.$          | Mozambique Channel..... | 3,000  |

### IV. SOUTHERN AFRICA.

|                                |                                         |         |           |                       |            |            |                              |        |
|--------------------------------|-----------------------------------------|---------|-----------|-----------------------|------------|------------|------------------------------|--------|
| 14. Cape Colony.....           | In the South of the Continent.....      | 351,434 | 1,464,000 | Cape Town.....        | $35.56 S.$ | $18.28 E.$ | Table Bay.....               | 45,240 |
| 15. Natal.....                 | In the South-east of the Continent..... | 18,750  | 355,500   | Pietermaritzburg..... | $30. 0 S.$ | $30.50 E.$ | 50 miles from the Coast..... | 6,800  |
| 16. Zululand.....              | North of Natal.....                     | 20,000  | 440,000   | No Towns.....         |            |            |                              |        |
| 17. Orange River Republic..... | South-west of Natal.....                | 42,500  | 65,000    | Bloemfontein.....     | $31.39 S.$ | $26.26 E.$ | Near the Orange River.....   | 1,200  |
| 18. Country of Hottentots..... | South of Lower Guinea.....              | 200,000 | 150,000   | Barica, &c.....       | $22. 8 S.$ | $17. 0 E.$ | On the Swakop River.....     | ?      |

### V. WESTERN AFRICA.

|                       |                                 |           |              |                              |            |            |                                   |        |
|-----------------------|---------------------------------|-----------|--------------|------------------------------|------------|------------|-----------------------------------|--------|
| 19. Lower Guinea..... | South-east of Upper Guinea..... | 600,000 ? | 5,000,000 ?  | St. Paul de Louanda, &c..... | $8.48 N.$  | $13.13 E.$ | On the West Coast.....            | 12,000 |
| 20. Upper Guinea..... | South-west of Senegambia.....   | 400,000 ? | 10,000,000 ? | Coumasset, &c.....           | $7. 0 N.$  | $2.35 W.$  | On the Dah River.....             | 18,000 |
| 21. Senegambia.....   | South-west of the Sahara.....   | 500,000 ? | 10,000,000 ? | Bathurst, &c.....            | $13.28 N.$ | $16.35 W.$ | I. of St. Mary, M. of Gambia..... | 7,000  |

### VI. CENTRAL NORTHERN AFRICA.

|                              |                                  |             |              |                 |            |           |                             |        |
|------------------------------|----------------------------------|-------------|--------------|-----------------|------------|-----------|-----------------------------|--------|
| 22. Sahara.....              | South of the Barbary States..... | 2,500,000 ? | 3,000,000 ?  | Agades, &c..... | $17. 2 N.$ | $8. 2 E.$ | In an Oasis.....            | 7,000  |
| 23. Soudan, or Nigritia..... | South of the Sahara.....         | 1,000,000 ? | 80,000,000 ? | Timbuctoo.....  | $17.45 N.$ | $3.20 E.$ | 8 miles from the Niger..... | 40,000 |



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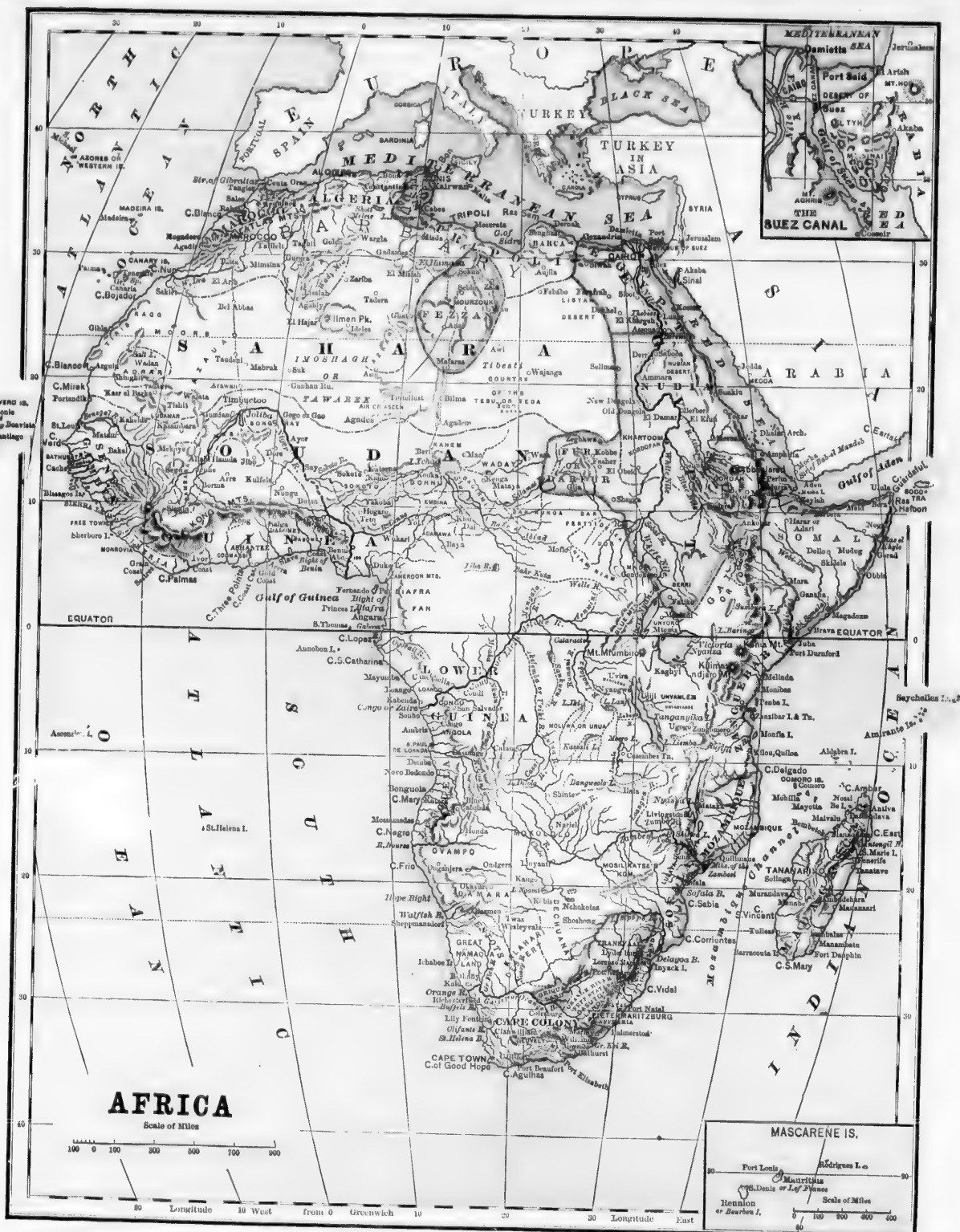
about 5000  
Its area is  
equal to a  
le of coast

| Population of Capital. |
|------------------------|
| 88,000                 |
| 53,000                 |
| 125,000                |
| 25,000                 |

|         |
|---------|
| 380,000 |
| 50,000  |
| 30,000  |
| 6,000   |
| 15,000  |
| 6,000   |

|        |
|--------|
| ?      |
| ?      |
| 80,000 |
| 9,000  |
| 3,000  |
| 45,240 |
| 6,800  |
| 1,200  |
| ?      |

|        |
|--------|
| 12,000 |
| 18,000 |
| 7,000  |
| 7,000  |
| 40,000 |



## VII. CENTRAL AFRICA.

| Name of State or Territory. | Position.         | Area in Eng. sq. miles. | Population (about). | Capital or Chief Place. | Lat.    | Long.    | Where Situated. | Population of Capital. |
|-----------------------------|-------------------|-------------------------|---------------------|-------------------------|---------|----------|-----------------|------------------------|
| 24 Unexplored Regions       |                   | 1,000,000 ?             | 30,000,000 ?        | —                       | —       | —        | —               | —                      |
| 25 Lake Region              | West of Zanguebar | 800,000 ?               | 18,000,000 ?        | Ujiji                   | 4. 0 S. | 30. 0 E. | Lake Tanganyika | ?                      |

## VIII. CENTRAL SOUTHERN AFRICA.

|                     |                             |           |             |               |          |          |                             |   |
|---------------------|-----------------------------|-----------|-------------|---------------|----------|----------|-----------------------------|---|
| 26 Zambeze Region   | West of Mozambique & Sofala |           |             | Linyanto, &c. | 18.10 S. | 23.02 E. | On the Chobè River          | ? |
| 27 Bechuana Country | West of Transvaal           | 600,000 ? | 5,000,000 ? | Kuruman       | 27.20 S. | 24. 8 E. | 330 miles N. E. of C. Town. | ? |
| 28 Kalahari Desert  | West of Bechuana Country    |           |             | No Towns      |          |          |                             |   |

## IX. ISLANDS.

|               |                    |         |           |            |          |          |                 |        |
|---------------|--------------------|---------|-----------|------------|----------|----------|-----------------|--------|
| 29 Madagascar | East of Mozambique | 244,000 | 2,500,000 | Tananarivo | 18.30 S. | 46.50 E. | Near the centre | 80,000 |
|---------------|--------------------|---------|-----------|------------|----------|----------|-----------------|--------|

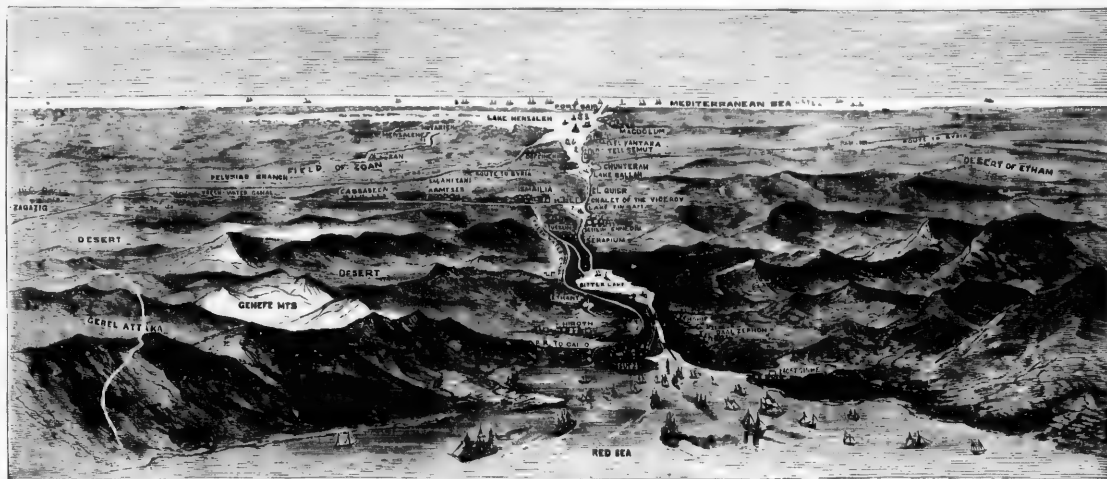
## 8. Physical Coast Features.—I In the Mediterranean Sea.

(1.) *Islands*.—*Lampedusa*, a small island between Tunis and Malta. *Terbah* and *Karkenah* in the Gulf of Gabes, east of Tunis.

(2.) *Capes*.—*Cape Spartel*, at the western entrance of the Strait of Gibraltar, and *Cape Centa*, (Abyla), opposite Gibraltar, both north of Morocco; *Ras-al-Krun*, or *Cape Blanco*, the northernmost point of Africa, and *Cape Bon*, both north of Tunis.

(3.) *Sea and Gulfs*.—*Mediterranean Sea*, between Africa and Europe. *Gulf of Cades* (Syria Minor), east of Tunis. *Gulf of Sidra* (Syria Major), between Tripoli and Barca.

(4.) *Strait*.—*Strait of Gibraltar*, (Fretum Herculeum or Straits of Hercules), between Morocco and Spain, uniting the Atlantic and the Mediterranean. It is bounded on the west by Cape Spartel (in Morocco) and Cape Trafalgar (in Spain); on the east by Cape Centa (Abyla) and Europa Point (Calpe), the Pillars of Hercules. A strong and constant central current runs through the strait from the Atlantic to the Mediterranean, with a velocity of between two and three miles an hour. If an anchor be cast in the strait, a lower current is found to prevail, telling out into the Ocean. The narrowest part of the strait is fifteen miles. Greatest depth 900 fathoms.



(5.) *Isthmus*.—*Isthmus of Suez*, 72 miles wide, unites Africa with Asia, and is traversed by a ship canal, begun in 1859, and completed in 1869 by M. de Lesseps, a celebrated French engineer. The canal connects Port Said on the Mediterranean and the Gulf of Suez in the Red Sea. It is 96 miles long, 200 to 300 feet wide at the top and 72 at the bottom, and 26 feet deep. Vessels are enabled to steam or to be towed through the canal in sixteen hours from sea to sea. Extensive harbors and docks have been constructed at both ends of the canal.

## II. In the Indian Ocean.

(1.) *Islands*.—*Socotra*, 100 miles east of Cape Guardafui, is 70 miles long from east to west. A range of granite mountains on the north side has an elevation of about 3000 feet. It has a mixed population of Arabs and Negroes estimated at 5000. It has long been famous for its aloes, gums, and dates. After an occupation of four years by Great Britain it was abandoned, but, in 1876, the British flag was re-planted by the Indian Government.

*Zanzibar*, *Pemba*, and *Mafia*, off the coast of Zanguebar. These islands are nominally tributary to the Sultan of Muscat. Zanzibar is 25 miles from the mainland, and is of coral formation. Its length is about 50 miles. The population is estimated at 150,000. Its chief productions are cloves, sugar, rice, coconuts, manioc, and tobacco. It is the great market of the world for ivory and gum copal. The capital, Zanzibar or Shangany, has a population of 80,000. Pemba is nearly as long as Zanzibar, but is narrower. It produces excellent timber. Mafia is low and fertile.

The *Amirantes*, a cluster of eleven low islets, surrounded with coral banks, lie 800 miles east of Zanzibar. They abound in land turtles.

The *Seychelles*, a group of thirty isles of granite formation, north-east of the Amirantes. Population, 9000. They produce pine-apples, coconuts, rice, maize, cotton, coffee, tobacco, and the sugar cane. The most remarkable vegetable production is the *coco-de-mer*, the fruit of a peculiar species of palm tree. It is an immense nut, weighing from 20 to 25 pounds, and received its name from being at one time supposed to grow at the bottom of the sea. Mahe, the largest isle, is 16 miles long. The chief town, Port Victoria, has a population of 6000, and a small garrison. The Seychelles were discovered by the French in 1741, and were ceded to Britain in 1814.

The *Comoro Islands*, a group of four volcanic islands (*Comoro*, *Johanna*, *Mohilla*, *Mayotte*), lie at the northern entrance of the Mozambique channel, and about 200 miles from the coast of Africa. Comoro, the largest island, is 30 miles in length, and 12 in breadth. The islands are mountainous, healthy, and fertile, (several peaks in Johanna rise to 6000 feet). The chief exports are coconut oil,

torrisse-shell, sugar and coffee. The population is estimated at 80,000, and consists of Arabs and Mohammedan negroes. Mayotte was ceded to France in 1846; the other islands are independent, and are governed by native Sultans.

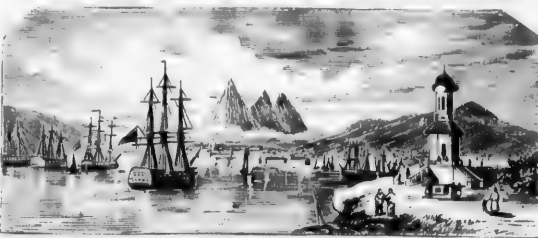
**Madagascar**, the fourth largest island in the world, lies off the east coast of South Africa, from which it is separated by the channel of Mozambique. Length, 950 miles; breadth, 360 miles; area, 244,000 square miles; population, about 2,500,000. It is traversed from north to south by a lofty range of mountains, which divides it into an eastern and western watershed, and gives rise to numerous rapid rivers subject to periodical overflow. The highest summit, Ankaratra, is near the centre of the island. In the interior, the elevated plains enjoy a temperate climate and a variety of seasons, but the shores are low, swampy, and unhealthy. The mountains yield gold, silver, copper, iron, and lead. Coal is found in small quantities. The forests contain valuable timber trees and ornamental woods. Among its important productions are indigo, manioc, rice, sugar, pepper, cotton, silk, tobacco, honey, wax, gums, and medicinal plants. The Malagasy or Malagasy belong to various tribes, of which the Hovas, who belong to the Malay race, are politically dominant. The government is a monarchy. The capital, Tananarivo (City of a Thousand Towns), (80,000), is situated on a lofty plateau, near the centre of the island. The chief port is Tamatave, on the east coast. The French hold the *Islands of Ste. Marie*, off the east coast, and *Nossi-Bé*, off the north-west coast.

The *Malagasy Isles* consist of *Bourbon*, *Mauritius*, and *Rodrigues*, east of Madagascar. They were discovered in 1505, by the Portuguese navigator, Mascarenhas. Bourbon or Reunion, 400 miles east of Madagascar, is of volcanic origin, and is traversed from north to south by a chain of mountains. Highest summit, Piton de Neiges, an extinct volcano, 10,100 feet. Piton de la Fournaise, an active volcano, is 7218 feet above the sea. Bourbon is of an oval shape, 38 miles long, and 28 miles broad; area, 765 square miles; population, 184,000. It exports sugar, coffee, cloves, dyewoods, and saltpetre. It is exposed to terrific hurricanes which cause great destruction. It has been a French colony since 1649. Capital, *St. Denis*, on the north coast.

*Mauritius* lies 115 miles north-east of Bourbon, and about 500 miles from Madagascar. It is a pear-shaped island. Length, 36 miles; breadth, 30 miles; area, 739 square miles; population, 340,000. A reef of coral nearly surrounds it. The interior is mountainous, thickly wooded, and well watered. One of the highest points is the picturesque mountain, Pieter Botte, 2874 feet above the sea. The climate is healthy and the soil fertile. The staple production and chief export is sugar. It also exports rum, coffee, cotton, indigo, and ebony. Its capital, *Port Louis* (65,800), on the north-west coast, is well fortified and has a good harbor. The island received its name from the Dutch, the first settlers, in 1548, in honor of their Prince Maurice. They abandoned it in 1710. The French held it from 1713 to 1810 under the name *Ile de France*. It was captured by the British



under Sir Ralph Abercrombie in 1810, and the old name was restored. It is the scene of St. Pierre's tale of Paul and Virginia. Mauritius is the seat of a colonial government of Great Britain which includes, as its dependencies, the following islands: Rodriguez, 300 m. east of Mauritius. Length, 12 miles; breadth, 3 to 6 miles. It has a few settlers of French descent. It abounds in turtles.



PORT ST. LOUIS, THE CAPITAL OF MAURITIUS.

(3.) **Capes.**—*Cape Guardafui* or *Jerdafuui*, the easternmost point of Africa; *Cape Delgado*, north-east of Mozambique; *Cape Corrientes*, south-east of Sofala, named from the many streams which there enter the sea; *Cape Vidal*, east of Zulu Land; *Cape Amber*, the northern, and *Cape St. Mary*, the southern point of Madagascar.

(4.) **Sea, Gulfs, and Bays.**—*Red Sea* or *Arabian Gulf*, between Africa and Arabia. Length, 1400 miles; breadth, 200 miles. Coral reefs line the shores, between which is the main channel, 40 miles wide and 600 feet deep. It has been calculated that its annual evaporation is equivalent to 165 cubic miles of water. *Gulf of Suez*, at the northern extremity of the Red Sea, between Egypt and Arabia. Length, 200 miles; breadth, 20 miles. *Gulf of Aden*, between Africa and the south coast of Arabia. Length from east to west, 480 miles; breadth from north to south, from 160 to 200 miles. *Sofala Bay*, east of Sofala. *Delagoa Bay*, east of South Africa. *Algoa Bay*, south-east of Cape Colony.

(5.) **Strait and Channel.**—*Strait of Babel-Mandeb*, Gate of Tears, uniting the Gulf of Aden and the Red Sea. It is 17 miles wide in the narrowest part, and is divided into two channels by the rocky island of Perim, which belongs to Britain. *Mozambique Channel*, between Mozambique and Madagascar. Length from north to south, 980 miles; breadth, at the centre, 250 miles, and at each outlet, 600 miles.

#### III In the Atlantic Ocean.

(1.) **Islands.**—The *Azores* or *Western Islands*, a group of nine volcanic islands, 800 miles west of Portugal, to which country they belong. St. Michael, the largest, is 50 miles long, and from 3 to 12 miles wide. Total area of the islands, 922 square miles. Population, 264,352. The surface of the islands is very rugged. The peak of Pico, the loftiest summit, is 7913 feet high. The principal products are oranges, lemons, wine, coffee, sugar, and tobacco. Angra, in Terceira, is the seat of government. Ponta Delgada, in St. Michael, is the commercial capital.

The *Madeira Islands*, about 400 miles west of Morocco. They belong to Portugal. The group consists of *Madeira*, *Porto Santo*, and the three *Desertas*. Madeira, the largest island, is a great mass of basaltic rock, rising in the Pico do Ruivo to the height of 6050 feet above the sea. Length, 35 miles; breadth, 15 miles; area, about 300 square miles. The valleys are well cultivated and contain vineyards and gardens. The climate is peculiarly genial, and is much resorted to by consumptive patients. It is celebrated for its wine, which, with sugar and coffee are the chief exports. Funchal, the capital, has a population of 20,665. The group is 215 square miles, and the population 132,222. Madeira (Wood) was so named by the Portuguese from its being well timbered. The island is said to have been discovered by Markham, an Englishman, in 1344.

The *Canary Islands*, a group of twelve islands of volcanic origin, 60 miles south-west of Morocco. The seven principal islands are *Lanzarote*, *Fuerteventura*, *Canary*, *Teneriffe*, *Gomera*, *Palma*, and *Ferro*. The area of the Canary Islands is 2863 square miles. Population, 280,388. They have belonged to Spain since 1478. The islands are very fertile, and have a warm, healthy climate. The chief productions are barley, cochineal, wine, oil, grain, sugar cane, and fruits.

*Teneriffe*, the largest island, has an area of about 1000 square miles. On it stands the Peco de Teide, the celebrated Peak of Teneriffe, 12,190 feet high. It contains the capital of the group, Santa Cruz. Population, about 15,000.

*Canary* is nearly round, about 40 miles in diameter, and contains the commercial capital, Palmas. *Ferro*, the most westerly (18° 9' W. Long.), is the island from whose meridian the geographers of ancient times reckoned longitude.

The *Cape Verde Islands*, a cluster of fourteen islands of volcanic origin, 320 miles west of Cape Verde. Area, 1487 square miles; population, 91,000. The islands are mountainous, the soil moderately fertile, and the climate hot and unhealthy. The exports are cotton, maize, rice, and fruits. Ten of the islands are inhabited. *Santiago*, the largest island, contains the chief town, Porto Praya. *San Vicente* is the capital, Mindello. The Volcano of *Fogo* rises to the height of 9155 feet. The islands belong to Portugal.

The *Bissagos* or *Bijagos Islands*, a group of about twenty small islands, west of Senegambia. They are of volcanic origin. The natives are savage negroes. The chief products are rice and fruits. They belong to Portugal.

The *Los Islands* are a group of three volcanic islands (*Facory Island*, *Tamara*, and *Ruma*) 75 miles north-west of Sierra Leone. They belong to Britain.

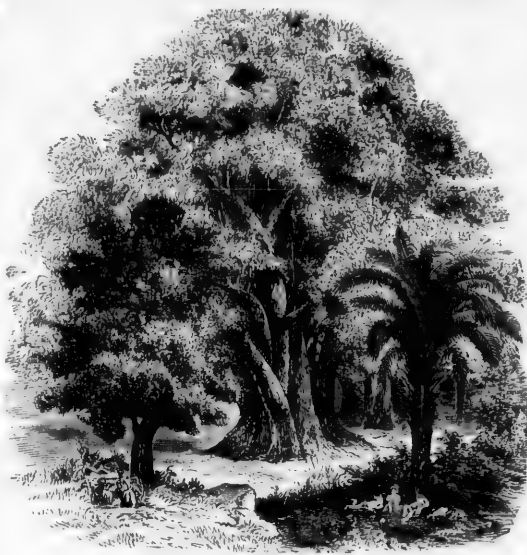
*Sherboro Island*, 40 miles south-east of Sierra Leone. Length, 40 miles; breadth, 10 miles. It produces rice and fruit. The climate is unhealthy. It belongs to Britain.

*Fernando Po*, *Prince's Island*, *St. Thomas*, and *Annobon*, in the Bight of Biafra. Fernando Po is named after Fernando Gomez, a Portuguese navigator, who discovered it in 1471. It is mountainous, fertile, densely wooded, and has an exceedingly unhealthy climate. Clarence Peak, a magnificent cone, rises to the height of 10,100 feet. Clarence, an English settlement, on the north coast, was founded in 1827. The island belongs to Spain. Area, 800 square miles; population, about 30,000. Prince's Island and St. Thomas belong to Portugal. They are fertile and flourishing. Their population is about 21,000. St. Thomas is intersected by the equator. In its centre, the peak of Santa Anna rises to the height of 7020 feet. Annobon belongs to Spain. Population, 3000.

*Ascension Island*, 960 miles south-south-west of Cape Palmas. It belongs to Britain. It was discovered by the Portuguese on Ascension Day, in 1501. It is used as a victualling and coaling station for ships. Its exports are turtle and birds' eggs. It is of volcanic origin, and has a peak rising to the height of 1850 feet. Population, about 200; area, 34 square miles. Capital, Georgetown.

*St. Helena*, 850 miles south-east of Ascension Island, 1200 miles from the nearest point of Africa and 1800 miles from South America. It was discovered by the Portuguese on St. Helena's day, in 1501. It was occupied by the Dutch, who ceded it to the English in 1673. It is of volcanic origin, and rises so precipitously from the sea that the interior is accessible from only four points. The highest point, Diana's Peak, rises to the height of 2700 feet. The climate is mild and healthy, water is abundant, and the soil fertile. It is famous as the place of Napoleon's captivity from 1815 till his death in 1821. Length, 10 miles; breadth, 6 miles; area, 47 square miles; population, 6241. Capital, James Town.

*Tristão d'Acunha*, the largest of three volcanic islets in the South Atlantic. Its surface is mountainous; one peak rises to the height of 8236 feet above the sea. The other islands are *Nightingale* and *Inaccessible*. They belong to Britain. Area, 45 square miles; population 109.



BAOBAB TREE.

(3.) **Capes.**—*Cape Ghir*, the termination of the Atlas range, and *Cape Nun*, west of Morocco.

*Cape Bojador* (Round Cape), and *Cape Blanco* (White Cape), so named from its white sandy peaks, west of the Sahara.

*Cape Verde* (Green Cape), so named from the verdure of its baobab trees, the westernmost point of Africa, and *Cape Roxo* (Red Cape), west of Senegambia.

*Cape Palmas*, so named from its palm trees, at the commencement of the Gulf of Guinea, *Cape Three Points*, and *Cape Formosa* (Beautiful Cape), all south of Upper Guinea.

*Cape Lopez*, at the south point of the Bight of Biafra, and *Cape Negro* (Black Cape), both west of Lower Guinea.

*Cape of Good Hope*, south-west of Cape Colony. Discovered in the year 1486 by Bartholomew Diaz, who called it *Cabo Tormentoso* (Stormy Cape), for which John III. of Portugal substituted the name *Cabo de Bon Esperanza* (Cape of Good Hope): doubled by Vasco da Gama, in 1497.

*Cape Agulhas*, or the Needles, the southernmost point of Africa.

(4.) **Gulfs and Bays.**—*Gulf of Guinea*, south of Upper Guinea, including the *Bight of Benin* between the Gold Coast and the mouths of the Niger, and the *Bight of Biafra* from the mouths of the Niger to Cape Lopez.

*St. Helena Bay*, *Table Bay*, and *False Bay*, south-west of Cape Colony.

#### 9. Physical Features of the Interior.

(1.) **Mountains.**—The mean elevation of Africa is 1600 feet. A mountain girdle extends, with few breaks, round the edge of the continent, the interior of which is occupied by table lands.

(a.) The *Atlas System* extends from Cape Ghir on the Atlantic to Cape Bon on the Mediterranean, and occupies an area of 500,000 square miles. It consists of three parallel ranges. The *Little Atlas*, the coast range of Algeria, extends from the River Sheliff to the River Boghgia. It is about 200 miles long, and is about 30 miles from the coast. The *Middle Atlas* extends from the Strait of Gibraltar to the Gulf of Tunis, and is from 15 to 45 miles inland. The *Great Atlas* extends from Cape Ghir to Cape Bon. It is the loftiest range, and contains the highest summit of the System, Mount Miltuin, in Morocco, 11,400 feet.

(b.) The *North-Eastern Range* extends from the Isthmus of Suez to Cape Guardafui. The heights which skirt the coast of the Red Sea as far as Nubia attain an elevation of 6000 feet. They unite with the *Langeb Hills*, which run southward, and near Massowah join the *Mountains of Abyssinia*. The highest summits in Abyssinia are Ras Deichen, 15,986 feet, and Abba Jarrat, 15,020 feet.

(c.) The **South-Eastern Range** extends from Cape Guardafui to the Cape of Good Hope. It contains, between  $1^{\circ}$  and  $3^{\circ}$  S. Lat., *Mount Kenia*, 19,000 feet, and *Kilimandjaro*, *Snowy Mountain*, 20,095 feet, the highest summit in Africa. From *Mount Kenia* a ridge of high land extends northward through the Galla Country to the Mountains of Abyssinia. The *N'josa Mountains* enclose *Lake Nyassa* on the east. Between *Lake Nyassa* and *Lake Shirwa*, *Mount Zomba* rises to the height of 7000 feet, and southward from *Lake Shirwa* is *Mount Milanje* with an elevation of 8000 feet. The *Qualamba* or *Drakenberg* (Dragons Mountain), range, runs southward from the Limpopo River through Natal, and then westward through Cape Colony under the names of the *Sennu Bergen*, *Nieuveld*, and *Roggeveld Mountains*. Highest summit, *Compass Berg* or *Spitz Kop*, 10,450 feet, in the *Sennu Bergen*, the culminating point of Southern Africa. South of the *Nieuveld* are the *Zwartebergen*, or Black Mountains. Height, from 6000 to 7000 feet. The *Langebergen*, from 50 to 30 miles from the coast, extend eastward for 200 miles from *Table Mountain* (3550 feet), which is the highest summit.



HUNTING THE GORILLA.

(d.) The **South-Western Range** extends from Cape Colony to the Bight of Biafra. It contains *Omatako Berg*, in the Damara Country, 8730 feet high. North of the *Ogowe River*, the chain is called the *Sierra del Cristal*. Height, from 500 to 2000 feet. Farther north are the *Cameroon Mountains*, near the Bight of Biafra. Highest summit, *Mount Albert*, 13,000 feet.

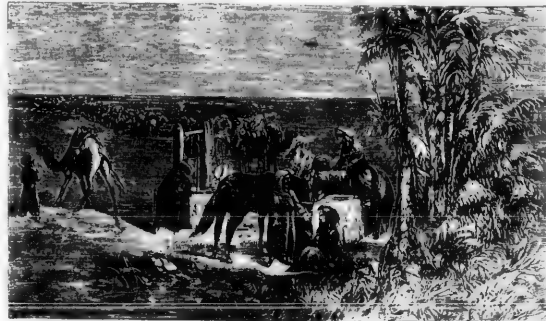
(e.) The **Kong Mountains** between Soudan and Guinea. Highest summit, *Mount Rennell*, 3200 feet.

(f.) Along the northern edge of the Southern Plateau are *Mount Atlantica*, near the sources of the Chadda, 9000 feet, and *Mount Mindif*, south of *Lake Tchad*, 6000 feet.

(g.) The **Blue Mountains** west of *Albert Nyanza*. Height above the sea, 9500 feet. A ridge of high mountains extends between the *Albert Nyanza* and *Tanganyika*. Highest summit, *Mount Mumbiro*, 10,000 feet. The *Rua Mountains* are west of *Lupula* and *Lake Moero*. The *Mountains of Lokinga* extend east and west, to the south of *Lake Bangweolo*. The *Matoppo Mountains*, between the *Zambesi* and the *Limpopo* rivers, attain an elevation of 7200 feet.

(h.) **Plateaus**.—A line drawn from the Bight of Biafra to the Gulf of Aden divides Africa into a northern and a southern Plateau.

(A.) The **Northern Plateau** is oval-shaped. Its greatest length is from west to east. Height, about 2000 feet. It comprises several subdivisions.



THE EDGE OF THE DESERT.

(a.) The **Sahara** or **Great Desert** extends from the Atlantic on the west to Egypt on the east, and from the Barbary States on the north to Soudan on the south. Its length from east to west is about 2500 miles; its breadth from north to south varies from 1000 to 1200 miles. Its mean height is

1500 feet. In some parts the surface is low and flat, and in others is characterized by table lands and hills. The eastern part of the Sahara is called the *Libyan Desert* in the northern part of which a remarkable depression, from 100 to 150 feet below the level of the Mediterranean, extends south of Barca, from the Gulf of Sidra towards Egypt. The *Plateau of Air* or *Asken*, northwest of *Lake Tchad*, has an elevation of from 4000 to 5000 feet.

(b.) The **Plateau of Barbary** forms the north-western portion of the Northern Plateau. It stretches through Morocco, Algeria, and Tunis. In the two latter countries it is from 2000 to 3000 feet high. The *Plateau of Barca* lies east of the Gulf of Sidra.

(c.) The **Plateau of Nigritia**, in the south of the Northern Plateau, is about one-fourth of the size of the Sahara, and has an elevation of from 1000 to 2000 feet. But the basin of *Lake Tchad* is only 850 feet above sea level.

(d.) The **Plateau of Abyssinia** is wedge-shaped. A plain about thirty miles wide separates it from the Red Sea on the north-east. It rises precipitously from this plain to the height of 8000 or 9000 feet, and slopes gradually towards the Nile. Its limits on the south are undefined, but it is known to extend through the Galla Country as far as the equator.

(E.) The **Southern Plateau** is of triangular shape, with its greatest length from north to south. Height, from 4000 to 5000 feet. It comprises several divisions.

(a.) A plateau north and west of *Lake Nyassa*, and between it and *Lake Tanganyika*, has an elevation of from 3000 to 6000 feet.

(b.) The **Kalahari Desert** extends from *Lake Ngami* to the *Orange River*. It is destitute of rivers, and has few springs. Length, 600 miles; breadth, 500 miles; height above the sea, 3000 feet.

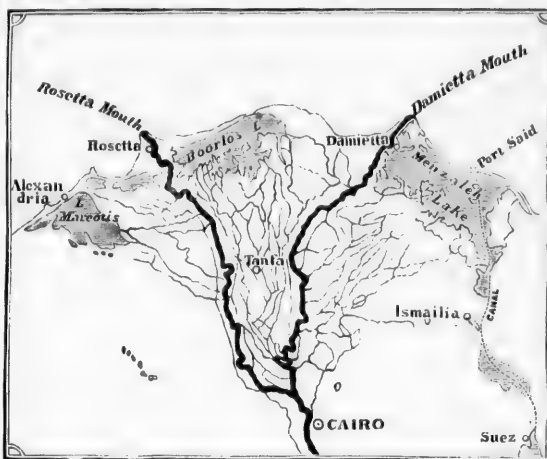
(c.) The **Great Karro** lies between the *Nieuveld* and the parallel range of the *Zwartebergen*. During the dry season it is a desert. It extends from east to west for 400 miles, and has an average breadth of 50 miles. Its elevation above the sea is 3000 feet.

(d.) The **Plateau of Kannaaland** lies between the *Zwartebergen* and the *Langebergen*. It contains some well-watered and fertile tracts. Height, 600 feet.

NOTE.—The steep passes which connect these Karroos are called clouds.

(3.) The Rivers may be arranged as follows: (A.) The **Mediterranean System**; (B.) The **Indian System**; (C.) The **Atlantic Proper System**; and (D.) The **Continental System**.

(A.) The **Mediterranean System**.



DELTA OF THE NILE.

**Principal River.**—The Nile, one of the greatest rivers in the world, rises in  $5^{\circ} 13' 3''$  S. Lat., and under the name of the *Shimcey River* flows northward for 300 miles, and enters *Speke Gulf* in the *Victoria Nyanza*. As the *Somerset River*, it issues from the *Victoria Nyanza* (3308 feet above the sea) by the *Ripon Falls*, which are 400 feet wide and 12 feet deep, flows north, forming the *Karuma Falls*, then, turning west and plunging over the *Murchison Falls* in a sheer descent of 120 feet, it enters the *Albert Nyanza* (2720 feet above the sea), near its northern extremity. Leaving the *Albert Nyanza*, the Nile flows northward for 800 miles to the confluence of the *Bahr el Ghazal*. Here it is called the *Bahr el Abiad*, or *White River*. It turns eastward to the confluence of the *Sobat*, and then resumes its northerly course to the confluence of the *Bahr el Azek*, or *Blue River*. It then flows north-easterly, and, after making a great bend to the south-west, again resumes its northerly course to the Mediterranean. Length, 4000 miles; area of basin, 520,000 square miles. Its principal tributary on the left bank is the *Bahr el Ghazal*, or *Jur*. Its principal tributaries on the right bank are the *Atoa*, the *Grafie*, the *Bahr el Azek*, and the *Atbara*. The *Bahr el Azek*, or *Blue Nile*, is formed by two streams, the *Abai*, from *Lake Dembea*, and the *Dellhesa*. It joins the Nile at *Khartoum*. It is this river which, in the rainy season, causes the annual overflow of the Nile. The *Atbara*, or *Black River*, with its tributary, the *Setete*, or *Tacaze*, from *Central Abyssinia*, joins the Nile at *Berber*. Beyond this, in its course of 1200 miles to the sea, the Nile receives no tributary. Near *Cairo*, about 60 miles from the sea, the Nile divides into two main arms, the western or the *Rosetta*, and the eastern or the *Damietta*, so called after the towns at their mouths. The rich country enclosed by these arms is called the *Delta* of the Nile, and extends along the coast for 85 miles. It occupies an area of about 9000 square miles. The Nile begins to rise in April and to subside in November. The average height of the flood is 25 feet.

**Minor Rivers.**—(a.) The *Mutoush* flows north-east through Morocco, and ends at the Gulf of Melilah. Length, 350 miles.

(b.) The *Sheliff* flows through Lake Titteri, and, after a north and north-west course through Algeria, enters the Mediterranean at Mostaganum. Length, 350 miles; area of basin, 15,700 square miles.

(c.) The *Medjerda* rises in the Great Atlas, flows north-east through Tunis, and ends in the Gulf of Tunis. Length, 300 miles.

#### (B.) The Indian System.

**Principal River.**—The *Zambezi* issues from Lake Dilolo (4740 feet above the sea), and under the name of the *Lebba* flows southward, receiving the *Leambye* and the *Chobe*. Forty miles east of its confluence with the *Chobe*, it forms the Victoria Falls, which are 1000 yards wide, and 300 feet high. It then flows north-east to its confluence with the *Kafue*, and then east to its junction with the *Loangwa*. From this point, it flows south-east to its confluence with the *Shiré*, and finally enters the ocean by several mouths which form a delta occupying an area of 30,000 square miles. Length, 1430 miles; area of basin, 570,000 square miles.

Its principal tributary on the right bank is the *Chobe*, from the south-west.

Its principal tributaries on the left bank are the *Leambye*, from the north-east; the *Kafue*; the *Loangwa*, from the north; and the *Shiré*, which drains Lake Nyassa, also from the north.

**Minor Rivers.**—(a.) The *Webb* or *Haines* rises in the south of Abyssinia, flows southward through the Somali Country, and ends in a lake near the coast.

(b.) The *Jubé*, the largest river of the east coast north of the equator, rises in the Galla Country, and enters the sea at Jubá, on the equator.

(c.) The *Rufiji* or *Lufji*, reported to issue from a lake in the country of the Unyamusi under the name of the *Kusha*, flows eastward and enters the sea by numerous mouths opposite the island of Moucha.

(d.) The *Rovuma* rises to the east of Lake Nyassa, flows eastward, and enters the sea near Cape Delgado.

(e.) The *Limpopo* rises in the Drakenberg Mountains, curves round Transvaal, and flows into Delagoa Bay.

#### (C.) The Atlantic Proper System.

(a.) The *Orange* or *Garipe*, the largest river of South Africa, is formed by two streams, the *Nu* (Black) *Garipe* and the *Ky* (Yellow) *Garipe* or *Yaal*, which rise on the west slope of the Drakenberg Mountains and encircle the Orange River Republic. It flows in a general westerly course, with many windings, between Cape Colony and the Country of the Hottentots, and enters the Atlantic in 28° 30' S. Lat. Midway between the sea and the confluence of the two head streams there is a great fall, 150 feet in height. The mouth of the river is closed by a sandbar. Length, 1200 miles.

Regarding the *Nu* *Garipe* as the main stream, the principal tributaries on the right bank are the *Ky* *Garipe*, from the Drakenberg Mountains; the *Malopo* and *Nosob*, from the Kalahari region; and the *Great Fish* River, from Great Namaqua Land.

The principal tributaries on the left bank are the *Ongar*, and the *Zak* or *Hartebeest*, with its affluent, *Olifant's Vlei*.

(b.) The *Congo* or *Zaire* rises, under the name of the *Chambese*, about 33° E. Long., and flows to Lake Bangweulu or Bemba (5688 feet above the sea), which it enters on the east side. Issuing from the west side of the lake, it flows north to Lake Moero under the name of the *Luapula*. Leaving Lake Moero as the *Luvua* or *Lualaba*, it bursts through the Mountains of Rua, and continues its northerly course to Lake Lanji, Ulonga, or Kamolondo, whence it flows north by west to Nyangwe (4° 16' S. Lat., 26° 15' E. Long.), which is nearly equidistant from the Atlantic and the Indian Ocean. Here, it is 1400 yards wide, and has an altitude of 1400 feet above the sea. The volume of water which passes Nyangwe is 123,000 cubic feet per second in the dry season. From Nyangwe, it continues its northerly course to two degrees north of the equator. Its direction is then south-west to the Atlantic, which it enters in about 6° S. Lat. In his exploration of the river from Nyangwe, Stanley encountered fifty-seven cataracts, falls, and rapids. Between the Kwanza and the great Yellala Rapids, which are 110 miles from the coast, a long series of thirty falls and rapids extend over 180 miles; but between 26° and 17° E. Long., the river has an uninterrupted course of 700 miles, and receives many large tributaries. It enters the sea by an estuary 10 miles wide. The depth of the Congo at its mouth is 1000 feet. Its volume of water is second only to that of the Amazon, and has been roughly estimated at 2,000,000 cubic feet per second. Between Nyangwe and the Ocean, the Congo has a course of 1800 miles. Its total length is upwards of 3500 miles, and the area of its basin is about 860,000 square miles.

Stanley proposes to name the river the Livingstone, in honor of the noble Missionary explorer, who died on the shores of Lake Bemba.

**Tributaries.**—It receives on the left bank, between Lakes Moero and Lanji, the *Kamarondo* or *Lualaba* proper, which flows through Lake Lotemba and Lake Kasali (1750 feet above the sea), the *Lomani* which drains Lake Iki, Chibugo, or Lincolin; the *Kassabé*, which enters Lake Sankoro, an expansion of the main stream; and the *Kuanango*.

It receives on the right from the northward the *Litwa*, the *Liudi*, the *Louwa*, which is 2000 yards wide at the confluence, and the *Arnoimi*, conjectured to be the *Welle* (v).

(c.) The *Ogowe* is formed by two streams, the *Apanga* and the *Akandu*, about 180 miles from Cape Lopez. Its delta begins 30 miles inland, and the two most important channels discharge their waters to the north and south of Cape Lopez. The sources of the river are unknown, but one feeder is conjectured to flow from a great lake reported to lie to the north-west of the Albert Nyanza.

(d.) The *Niger*, *Joliba*, or *Quorra*, rises in the northern slope of the Kong Mountains, at an elevation of 1600 feet above the sea. Flowing north-east, it expands below Jenneh into the Lake of Debo. Before reaching the limit of its north-east course, it divides into two branches which enclose the island of Jimballa, 220 miles in length. In approaching Timbuctoo, it again

separates into two branches forming another river island, in which is situated Kabara, the port of Timbuctoo (17° 40' N. Lat.). It then flows east to the first meridian, then south-east to the confluence of the Chadda or Benue, then south to the Bight of Benin. Its twenty-two mouths form a delta larger than that of the Nile. It is a region of swamps, jungles, and forests. The largest channel is the *Nun*. Length, 2000 miles.

Its principal tributaries, which it receives on the left bank, are the *Sotho* and the *Chadda* or *Benue*.

**NOTE.**—The name *Niger* is an imitation of the native name *N'eghirren*; *Joliba*, the name of the river above Timbuctoo, means Great River; *Quorra*, the name of the river below Timbuctoo, represents the native name *N'houura*.

(e.) The *Gambia* rises in the Tengui Mountains, flows westward, and empties into the Atlantic about 13° N. Lat. by an estuary in some places 27 miles wide, but between Bird Island and Cape St. Mary only 10 miles wide. It is a valuable commercial highway. Length, 1000 miles.

(f.) The *Senegal* rises in Bambarra, flows north-west and enters the Atlantic about 16° N. Lat., in the north of Senegambia. Its mouth is obstructed by a sandbar. It is navigable for 750 miles to the cataracts of Feloo. Length, 1000 miles.

**Minor Rivers.**—(a.) The *Dran*, from the southern slope of the Atlas, is supposed to enter the Atlantic by the course of the *Nun* or *El Ahan*, south of Cape Nun. Length, 500 miles.

(b.) The *Rio Grande* from Foutaallon flows west and enters the Atlantic by an estuary 10 miles wide, opposite the Bissagos Islands. Length, 400 miles.

(c.) The *Rebelle* or *Serra Leone River* flows west and enters the Atlantic, by an estuary, at Sierra Leone. Length, 250 miles.

(d.) The *Covanas* or *Kwanas*, flows west through Angola, and enters the Atlantic to the south of Loanda.

(e.) The *Cunene* rises in the Mossamba Mountains, and flows in a curving south-west course through Benguela to the Atlantic, which it enters between Cape Negro and Cape Frio.

(f.) The *Olifant* or *Elephant* river, in Cape Colony, drains the western part of the Great Karroo into the Atlantic.

#### (D.) The Continental System.

(a.) **Basin of Lake Tchad.**—1. The *Yeu* from the highlands of Sokoto flows east, and enters the lake on the west side. 2. The *Shari*, the largest affluent, from the watershed between Sudan and the Bahr el Ghazal, flows north-west and enters the lake, on the south-east, by several mouths forming a delta. It is 700 yards wide and 15 feet deep, 100 miles from its delta. In its course it separates into many branches, and receives numerous tributaries.

(b.) **Basin of Lake Tanganyika.**—1. The *Ruvu* flows south from Kivu Lake, and enters Lake Tanganyika at the northern end. 2. The *Luhya* is on the west side, but whether it flows into or out of the lake is not yet determined. 3. The *Lofu*, enter it on the western side. 4. The *Malagarasi*, the largest known affluent, from the highlands between Lake Tanganyika and Victoria Nyanza, enters it on the eastern side near Ujiji.

(c.) **Basin of Lake Ngami.**—1. The *Tonku* or *Embara* flows south-east, and 2, the *Zonga*, west to Lake Ngami. Both influents become effluents after heavy rains. 3. The *Ohavango* or *Cubango* is supposed to rise in the east of Benguela. It is described as a great river in 18° S. Lat. Its course is unknown.

#### (4.) Lakes.—The lakes may be arranged in four divisions.

##### (A.) The Mediterranean Division.—In the basin of the Nile.

(a.) **Victoria Nyanza**, discovered by Speke in 1859, on a tableland under the equator, is one of the largest fresh-water lakes in the world, and forms the main reservoir of the White Nile. Its shores are deeply indented with bays, and have numerous long peninsulas. The western shore is flat, but the southern and eastern are bounded by mountains. The chief affluent is the Shimeeyu, which enters Speke Gulf after a course of 300 miles. Height above the sea, 3740 feet, or, according to Speke, 3308 feet; length, 230 miles; breadth, 180 miles; area, 30,000 square miles.

(b.) **Albert Nyanza**, discovered by Baker in 1864, west of the Victoria Nyanza, is a mountain lake. It receives the Somerset river from Victoria Nyanza, at Magungo, about 30 miles from its northern extremity. The forest-clad Blue Mountains, 7000 feet high, form its western shore. The eastern side is bounded by a mountain range, from which rise many lofty peaks, the highest, Mount Mfumbiro, 10,000 feet. Between Albert and Victoria Nyanza is Mount Gambaraga, 13,000 feet high. Height of Albert Nyanza above the sea, 2720 feet. Its area is much less than that of Victoria Nyanza.

(c.) **Lake Baringa**, the reservoir of the Asua, a tributary of the Nile on the right bank above Gondokoro.

(d.) **Lake Demben or Tanna**, in Abyssinia, is the reservoir of the Abai, branch of the Bahr el Azrek, or Blue Nile. Height above the sea, 6120 feet; length, 53 miles; breadth, 30 miles.

##### (B.) The Indian Ocean Division.—In the basin of the Zambezi.

(a.) **Lake Dilolo** (11° 15' S. Lat.), on the water parting between tributaries of the Congo and the Zambezi. It is the source of the *Lebba*, the head stream of the Zambezi. Height above the sea, 4740 feet.

(b.) **Lake Nyassa** (Lake of Stars), discovered by Livingstone in 1859, the most southerly of the great African lakes, is situated on the eastern edge of the great Southern Plateau, 350 miles west of the Mozambique coast. Its waters are fresh and of great depth. It is drained by the *Shiré* to the Zambezi. Height above the sea, 1522 feet; length, 300 miles; average breadth, 50 miles.

##### (C.) The Atlantic Division.—1. In the basin of the Congo.

(a.) **Lake Bangweulu or Bemba**, north of the Mountains of Lokinga, and west of Lake Nyassa, is an extensive marshy lake. It is oval shaped and has low spongy shores. Its chief affluent is the *Chambeze*, the head stream of the Congo. Livingstone, who discovered the lake, died on its southern shore, 1st May, 1873. Height of Bangweulu above the sea, 3688 feet; length, 150 miles; breadth, 40 miles.

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(b) *Lake Moero*, south-west of Lake Tanganyika, is the receptacle of the Luapula, the affluent of Lake Bomba. Height above the sea, 1000 feet; length, 50 miles.

(c) *Lake Luvu*, *Uluogo*, or *Komolondo*, west of Lake Tanganyika, receives the *Luvua* or *Lualaba* from Lake Moero. The river issues from its western extremity and flows north by west to Nyangwe. It has numerous islands.

(d) *Lake Lohumba*, and (e) *Lake Kassali* or *Ki Kouja* (1750 feet above the sea), are drained to the Lualaba by the Komerondo or Lualaba proper.

(f) *Lake Iki*, *Chelugo*, or *Lincota*, is drained to the Lomami, a tributary of the Lualaba.

(g) *Lake Sankorra* is an expansion of the Congo.

2. In the basin of the Niger.—*Lake Debo*, or Black Lake, is an expansion of the Niger below Jenné. It extends for about 10 miles from north to south.

(D.) The Continental System.—1. In the Northern Plateau.

(1) *Lake Tchad*, in Soudan, is a large, shallow, freshwater lake. It has no outlet. Its principal feeders are the Yeou and the Shari. The latter has been compared to the Nile in its volume of water. During the rainy season Lake Tchad inundates the surrounding country. Two-thirds of its area are said to be occupied by islands. It is 850 feet above the level of the sea. Its depth during the dry season is from 8 to 15 feet; length, 250 miles; breadth, 150 miles.

(b) *Lake Fitri*, 200 miles east of Lake Tchad, has no outlet. It receives the Batha.

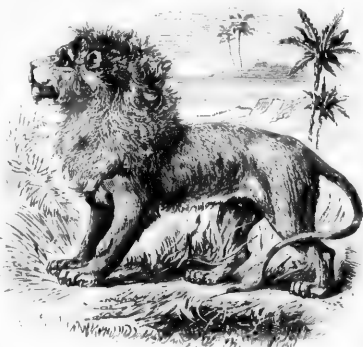
(c) *Lake Assal*, in the south-east of Abyssinia, is remarkable for its great depression, 760 feet below the level of the Red Sea.

2. In the Southern Plateau.

(a) *Lake Tanganyika*, discovered by Burton in 1859, lies to the south-west of the Victoria Nyanza. It is one of the most beautiful inland seas in the world. Its waters are sweet, and abound with fish in great variety. The south eastern part is called *Lake Licmba*. The name Tanganyika means the mixing place. Cameron found ninety-six rivers, besides torrents and springs, flowing into the portion of it which he surveyed, so that the name is well deserved. It has no known outlet, though it seems probable that the Lukuga, on the north-west of the lake, was formerly an affluent, and may become one again, as the waters of the lake are thought to be rising. An almost continuous fringe of hills and mountains surround the lake. Its depth is 1065 feet; height above the sea, 2710 feet; length, 350 miles; breadth, from 30 to 60 miles; area, 13,000 square miles.

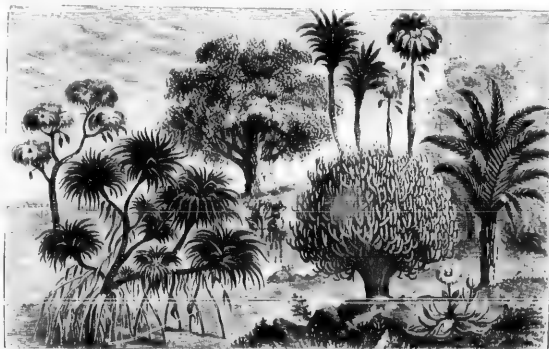
(b) *Lake Shirwa*, south of Lake Nyassa, has no outlet. Its waters are brackish. Height above the sea, 2000 feet.

(c) *Lake Ngami*, 900 miles south-west of Lake Nyassa, is shallow, and has no outlet. Height above the sea, 2355 feet; length, 50 miles; breadth from 8 to 18 miles.



THE LION.

10. Animals.—Lions, leopards, panthers, hyenas, jackals, and foxes, are numerous. The hippopotamus, the giraffe, the zebra, the quagga, the gorilla, and the chimpanzee are peculiar to Africa. There are also the elephant, the rhinoceros, the camel, the eland, the springbok, the guan, the Cape buffalo, the wart hog, the genoa pig, the crocodile, and the python, a large serpent allied to the boa-constrictor of South America. Monkey, baboons, apes, and lemurs, abound in the forests. The aye-aye is found only in Madagascar. Among birds are the ostrich, vulture, owl, falcon, parrot, cuckoo, and the guinea fowl.



Pandanus.

Baobab.

Date Palm.

Dahab Palm.

Euphorbia.

Tamarind.

Wine Palm.

Mossambicanum.

CHARACTERISTIC PLANTS OF AFRICA.

11. Vegetation.—In Northern Africa, the chief grains are wheat, dhourra, and barley. Oranges and lemons are abundant, and the cotton plant is cultivated. The date palm is found along the borders of the Sahara, and in its oases. On the west coast, within the tropics, the huge baobab is found. In Middle Africa, the food plants are maize, rice, yams, bananas, mandioc, and ground nuts. There are also gum-acacia, ebony, and cotton-trees, the butter-tree, and the coffee plant.

12. Minerals.—Iron and copper are found in Algeria, Abyssinia, Soudan, west of Lake Nyassa, and in Cape Colony. Gold is found in Abyssinia, in Katanga, in the rivers of the central region, and on the coasts of Guinea and Mozambique. Silver is found in Morocco, Abyssinia, and Urna. Salt is obtained in many parts of the continent. Coal is found on the Zambezi, in Mozambique, and in Madagascar. Diamonds are found in Griqualand West.

13. Climate.—As more than three-fourths of Africa lie in the torrid zone, the climate is hot and dry. There are but two seasons, the dry and the rainy; the latter occurring when the sun is nearest the earth. The east is liable to the Monsoons of the Indian Ocean. Violent hurricanes occur in the south-east. At the north, parching winds blow from the Sahara.

14. Inhabitants.—The people in the north belong to the Melanocheic family. South of the Sahara Desert and Nubia, the native races belong to the Negroid family. In the southerly portion are the Kaffirs, Hottentots, and Bushmen, all branches of the Negroid family.



THE DATE PALM.

## I. NORTHERN AFRICA, OR THE FOUR BARBARY STATES.

1. Morocco.—The ancient Mauritania, called by the Arabs *Maghrib ul Aqsa*, the extreme west, lies directly south of Spain, from which it is separated by the Strait of Gibraltar. The Atlas Mountains run parallel to the coast, with spurs branching out towards the sea, between which are fertile valleys watered by numerous streams. The government of Morocco is a despotism. The sovereign is called a sultan. The empire consists of two kingdoms, Morocco and Fez, and four provinces, Sus, Draha, Tafilet, and Segelmessa. The exports are olive oil, Morocco leather, hides, carpets, wool, indigo, salt, wax, and leeches.

Chief Cities.—There are three capitals: Fez (\$8,000), the principal, and the chief residence of the Sultan. Morocco (70,000), the old metropolis; and Mequinez (\$6,000), the summer residence of the Sultan. Fez stands near the Selu, 100 miles inland, and is noted for its leather. It is a holy city, containing 300 mosques; and is the seat of a university. Morocco, or Marakash, the Beautiful, stands near the Tensift, on the north side of a fertile plain which slopes from the Atlas range towards the sea. It is also noted for its leather. Mogador is on the Atlantic. Tangier is the chief seaport. Tetuan and Ceuta belong to Spain.

2. Algeria, a French colony since 1830, lies north-east of Morocco, on the Mediterranean. It is divided into three provinces, Oran in the west, Algiers in the middle, and Constantine in the east. It is intersected by the Atlas Mountains, with branches enclosing valleys sloping toward the sea. Minerals are abundant, especially iron, lead, and copper. The most important export is Esparto grass, used for making paper; the other principal exports are coral, sponges, wax, skins, and ostrich feathers.

Chief Cities.—Algiers (\$3,000), the capital, Constantine (40,000), and Oran (41,000).

3. Tunis, a nominal dependency of Turkey, governed by a Bey, lies east of Algeria and directly south of the island of Sardinia. It is a long narrow strip, with a coast line running east and south on the Mediterranean. It is a fertile country, and produces fruits, drugs, dyes, olives, and dates. Wheat, olive oil, barley, and Esparto grass are the chief exports.

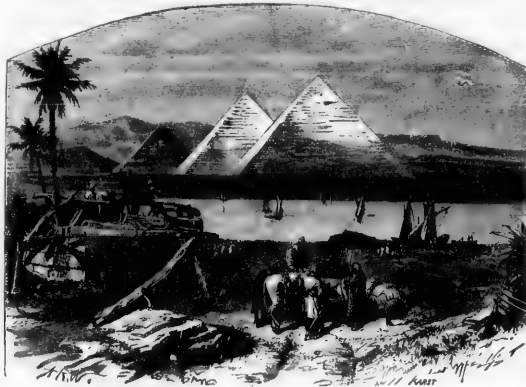
Chief Cities.—Tunis (125,000), on the northern coast, near ancient Carthage, is the capital, and has an extensive trade with the interior. Kairouan (50,000), about seventy miles south of Tunis, with a magnificent mosque, is the holy city of Africa.

4. Tripoli derives its name from the Greek *tripolis*, three cities, having been settled by Tyre, Sidon, and Aradus. It is a Turkish pachalic, and lies east of Tunis. Barca, the ancient Pentapolis, a dependency to the east, and the Fezzan Oasis, a tributary to the south, are included in the pachalic. The country has a coast line of a thousand miles, and its surface is diversified by desert, mountain, and fertile valley. The chief products are dates, olives, salt, sheep, and cattle; and the chief articles of export are bullocks, wheat, barley, ivory, ostrich feathers, oil, Esparto grass, pepper, madder, and wool.

Chief Cities.—Tripoli (25,000), the capital, is to the west on the coast. It has a large caravan trade with Central Africa. Benghazi (25,000), a seaport, is the chief town in Barca. Mouranah, in Fezzan, is the great stopping place for caravans going south and east.



## II. NORTH-EASTERN AFRICA.



VIEW OF THE NILE.

1. **Egypt**.—This famous land occupies the north-eastern corner of Africa, through which flows the celebrated River Nile. It is noted for its antiquity, its famous River Nile, its pottery manufactures, its celebrated pyramids, and as having been the place of bondage of the Israelites. The Nile, enclosed by a double range of mountainous hills, enters the Mediterranean by two principal streams, which form a delta. The pyramids and other remains of ancient art which are found in Egypt, with the numerous groves of palm trees, give a peculiarity to the scenery. The annual inundation of the Nile gives great fertility to the soil. The government of Egypt is an absolute hereditary monarchy. The Khedive, or sovereign, owes a nominal subjection to the Sultan of Turkey, but he is virtually independent. Egypt now extends from the Mediterranean to the Equator, and embraces Egypt proper, Nubia, Kordofan, Darfur, and the valley of the Nile as far as the Lake Victoria Nyanza.

The chief products are cotton, rice, wheat, millet, melons, dates, gourds, sugar-cane, and hemp. The lotus and papyrus are still found in the Nile. Crocodiles abound in the river.

**Chief Cities**.—**Cairo** (350,000), 115 miles from the sea, the largest city in Africa, is the capital. **Alexandria** (312,000), on the west corner of the Delta, was founded by Alexander the Great, B.C. 332. It is the chief commercial city, and principal seaport of Egypt. **Rosetta**, on the western arm of the Nile, carries on manufactures. **Damietta**, on the eastern arm of the Nile, is the second principal port. **Dimitia**, a cotton manufacturing town, is named from it. **Suez**, at the head of the Red Sea, is the southern terminus of the Suez Canal. It has a large transit trade.

2. **Nubia** lies south of Egypt proper. It extends along the Red Sea to Annesley Bay (15° N. Lat.). Up the Nile it extends to the confluence of the Sobat, including the formerly powerful Kingdom of Sennar between the Blue and the White Nile. Along these rivers the soil is fertile, but the interior is rocky and desert. The climate is intensely hot and dry. The products are dhourra, coffee, indigo, senna, dates, and ebony trees. Tropical animals are numerous. Nubia has been subject to Egypt since its conquest by Ibrahim Pasha, in 1821.

**Chief Cities**.—**Khartoum** (35,000), the capital, near the junction of the White and Blue Niles, is a flourishing commercial city. **Sennar**, on the Blue Nile, manufactures leather and arms. **Sherdy**, on the Nile, is a caravan station. **New Dongola**, the chief place in Middle Nubia, has considerable trade, and is a military depot. **Snakin**, on the Red Sea, is a port of departure for pilgrims for Mecca. **Massowah**, another Red Sea port, has been taken from Abyssinia.

3. **Kordofan**, on the south-west of Nubia, is bounded on the east by the White Nile. It was formerly a dependency of Nubia, but has been subject to Egypt since 1820. It is mountainous in the south, and flat in the central and northern parts.

**El-Obeid**, the capital, is an important caravan station.

4. **Egyptian Soudan** consists of Darfur and Wadai. **Darfur**, which lies to the west of Kordofan, was annexed to Egypt in 1874. The inhabitants, who number about 3,500,000, are a mixture of Arabs and Negroes; they speak an Arabic dialect and are Mohammedan in religion. A considerable caravan trade is carried on, principally with Egypt. **Kobbe**, the capital, stands on a tributary of the Bahr-el-Jur. **Tendelly** is an important town.

**Wadai**, which is a continuation of the western slopes of Darfur, acknowledged the suzerainty of Egypt in 1875, but is governed by its own Sultan. **Wara**, the capital, is in the north-east.

5. **Abyssinia** is one of the most ancient monarchies in the world, and until modern times was governed by an absolute monarch. It is now a kingdom, the principal provinces of which are Tigre and Amhara. The name Abyssinia is derived from the Arabic word Habesh, which signifies mixture or confusion. It lies between 9° 30' and 15° 40' N. Lat., and 35° and 40° 30' E. Long., having north and north-west, Nubia; east, Adal; south-east and south, Shoa, and the country of the Gallas; and west, the regions of the Upper Nile. The foreign trade of Abyssinia is carried on entirely through Massowah. Its principal imports are lead, tin, copper, silk, gunpowder, glassware, Persian carpets, and colored cloths. The chief exports are gold, ivory, musk, coffee, butter, honey, and wax. The trade and manufactures of Abyssinia are insignificant, the people being chiefly engaged in agricultural and pastoral pursuits. The prevailing religion of Abyssinia is a corrupt form of Christianity; but there are also many Mohammedans and Jews scattered through the country.

**Chief Cities**.—**Gondar**, the capital, is the residence of the patriarch of the Abyssinian church; **Adowa**, the capital of Tigre, is the largest town in Abyssinia.

6. **Shoa** lies south-east of Abyssinia, occupying the crown of the crown of the water-parting between the head waters of the Hawash and tributaries of the Blue Nile. It was formerly a province of Abyssinia, but gained its independence in 1868. **Ankobar**, the capital of Shoa, is situated 8200 feet above the sea.

7. **Adal** lies between the Abyssinian highland and the sea; its shores extending from Annesley Bay on the Red Sea, to the Bay of Tejura, the west point of the Gulf of Aden. It is a sterile region. The salt lake Assal lies 25 miles south-west of the Gulf of Tejura. It is eight miles in length, by four miles in breadth, and is 570 feet below the level of the sea. In many places its shores are covered with a crust of salt six inches thick. The inhabitants are a nomad race, called Danakil. Adal is claimed by Egypt. **Aussa**, the capital, is on the Hawash River. On the coast of Adal, France claims **Zoulah**, on Annesley Bay, **Ouda**, and **Obah**.

## III. EASTERN AFRICA.

**Eastern Africa** extends from the Gulf of Aden at the north, to Delagoa Bay at the south. It is bounded on the north, by Abyssinia, Adal, and the Gulf of Aden; on the east, by the Indian Ocean; on the south, by Zulu Land; and on the west, by Transvaal, the Zambesi Region, and the Lake Region. Its coast line measures upwards of 3500 miles; the breadth varies from 700 miles in the north to 200 miles in the south; approximate area, 1,300,000 square miles. The following are the principal divisions:

1. **Galla Country** is a vast region stretching from Abyssinia southward to the equator, and including Kaffa above the River G-djeb. It is an elevated region from 4000 to 8000 feet above the sea. The mountains are clothed with wood and the plains with grass. The country is well watered, and the climate is mild. The chief products are wheat, barley, and maize. The people are fierce savages, eating raw flesh.

2. **Warar** lies south of Adal. It is an inland kingdom, watered by the head streams of the Webbe or Haines River. The country is remarkably fertile. The natives are industrious. Egypt claims sovereignty over Harar. The principal exports are slaves and coffee.

**Chief Places**.—**Harar**, the capital, is near the Webbe River. The ports are **Zeyla**, and **Berberah**, on the Gulf of Aden; the latter is noted for its great fair, which lasts from October to April, and is visited by from 10,000 to 20,000 persons from the adjacent countries of Africa and Western Asia, and to which coffee, grains, ghee, ostrich feathers, gums, hides, gold dust, cattle, ivory, and slaves, are sent from the interior of Africa; and iron, Indian piece-goods, cotton, rice, &c., from Arabia and other parts of Asia.

3. **Somali Country**, in the eastern peninsula, extends from the Egyptian station at Berberah round Cape Guardafui to the River Jubb. This region is noted for odoriferous gums. The coast country from Cape Guardafui to 3° S. Lat., seldom visited, is called Ajan, south of which is Mukdeesha. **Magadowo** is the principal town between Cape Guardafui and the Jubb; **Karkar** is the chief inland town.

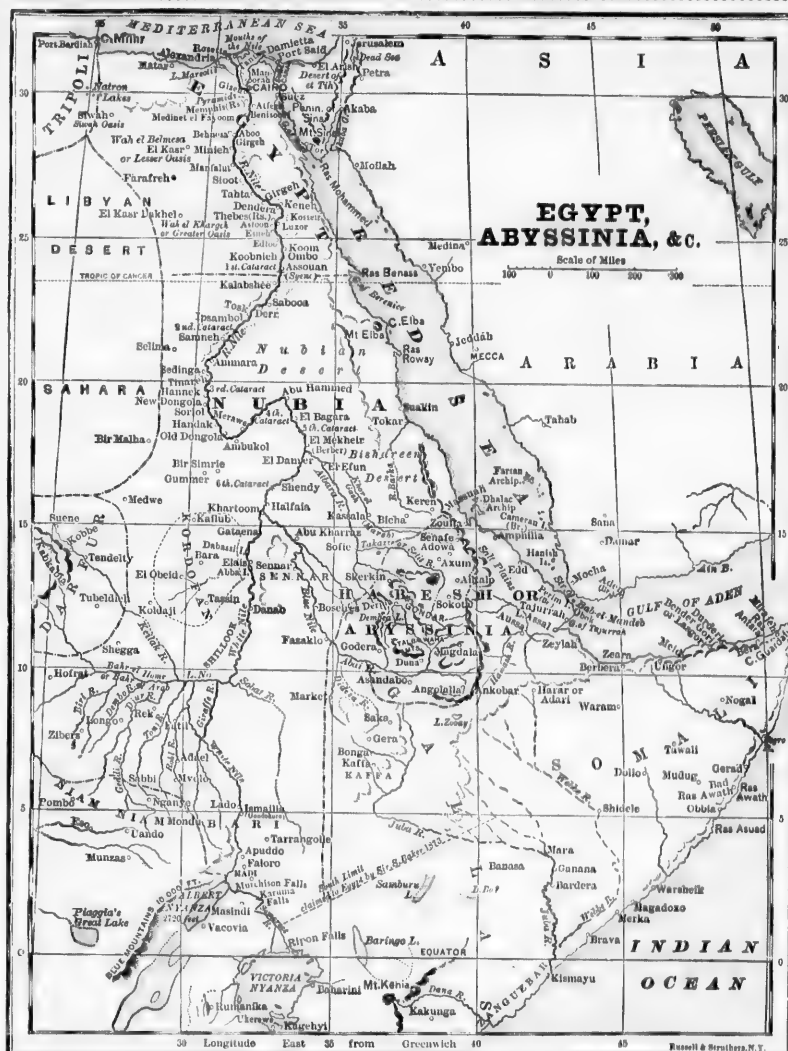
4. **Zanguebar** extends from the mouth of the Jubb to Cape Delgado. The coast is low and unhealthy. In the west there are mountain ranges which culminate in Kenia and Kilimandjaro. Trade is extensively carried on with Great Britain and other countries. The climate is hot and unhealthy. The chief exports are ivory, gum, cloves, and copal. Zanguebar is governed by a Sultan.

**Chief Places**.—**Zanzibar** or **Shanganny** (80,000), on the populous island of Zanzibar, is the capital of the Sultan's dominions. **Melinda**, **Mombasa**, **Bagimayo**, and **Quitoa**, are other important places.

5. **Mozambique**, including Quillmane, extends from Cape Delgado to the Zambesi; and

6. **Sofala**, including Inhambane, from that river to Delagoa Bay. These countries belong to Portugal, and extend inland from 100 to 200 miles. On the Zambesi, the authority of Portugal extends to Tete at the confluence of the Loangwa, a distance of 400 miles. The surface is low on the coast and mountainous in the interior. The principal products are wheat, maize, rice, sugar, and coffee. The chief exports are ivory, gold dust, and slaves.

**Chief Places**.—**Mozambique**, the capital, on a coral island near the coast. **Quillmane**, on the coast, is very unhealthy. **Sena** and **Tete**, on the Zambesi. **Sofala** and **Inhambane** on the coast.



## IV SOUTHERN AFRICA.

Southern Africa is bounded on the north by Ovampo, Makololo, Mashapattame, Matabelli, Makalaka, and Sofala; on the east and south by the Indian Ocean; and on the west by the Atlantic. It includes the British Colonies, Cape Colony and Natal; also the Orange River Free State, Zulu Land, Bechuana Land (including Bamangwato), the Kalahari Desert, Namaqua Land, and Damara Land. Cape Colony consists of Cape Colony Proper, British Kaffraria, Basuto Land, and the Transkei Territory, Griqua Land West, and the Transvaal. The areas and populations of these districts are given in the following table.

## CAPE COLONY AND NATAL.

| NAMES.                 | Date of incorporation. | Area Sq. Miles. | Population. |
|------------------------|------------------------|-----------------|-------------|
| 1. Cape Colony Proper. | 1853                   | 196,487         | 634,783     |
| 2. British Kaffraria.  | 1866                   | 3,463           | 86,501      |
| 3. Basuto Land.        | 1871                   | 10,293          | 128,176     |
| 4. Transkei Territory. | 1875                   | 12,452          | 254,600     |
| 5. Griqua Land West.   | 1876                   | 16,652          | 45,377      |
| 6. Transvaal.          | 1877                   | 112,107         | 315,100     |
| Total Cape Colony      |                        | 351,434         | 1,463,937   |
| 7. Natal.              |                        | 18,750          | 355,500     |

1. Cape Colony Proper is bounded on the north by the Orange River, on the west by the Atlantic and on the south-east by the Indian Ocean.

The coast, about 1200 miles in length, is not bold, but consists of a series of headlands, the principal of which is the Cape itself. The interior is varied by a series of plains and mountain ranges rising one above the other. On the other side of these ranges, the country again inclines toward the Orange River. The Olifants is the only other river of importance; both fall into the Atlantic. The climate is variable; hot south-east winds sometimes prevail. There is but little rain. Wheat is extensively cultivated. Of the native plants, the heaths and the silver-tree are the most numerous. A prickly vegetation (aloes, etc.), called the bush, prevails in the eastern part. The Cape buffalo is a native of this part of Africa. The chief exports are wool, copper, horses, sheep, ivory, wine, and ostrich feathers. The peaceful Hottentots and the intelligent Kaffirs are the two great native races. These are divided into ten or twelve different tribes, the remaining population is chiefly Dutch and British. The colony is usually divided into eastern and western provinces.

Chief Cities.—Cape Town (45,000), the capital, between Table Bay and Table Mountain, is a place of great trade. Graham's Town, is the chief town of the eastern province. Port Elizabeth (13,000) is the principal port next after Cape Town.

2. British Kaffraria lies between Cape Colony Proper and the River Kei. The country is healthy, well timbered, and fertile. Williamstown is the capital.

3. Basuto Land lies at the head-waters of the Orange River, south-west of Natal. It was proclaimed British territory in 1868, and annexed to Cape Colony in 1871.

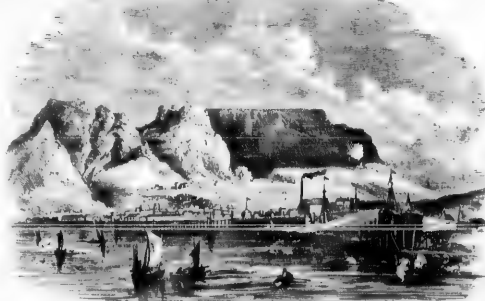
4. The Transkei Territory (sometimes called Griqua Land East), lies between British Kaffraria and Natal. Though formally annexed by Great Britain in 1875, it was not taken possession of till 1878. The principal towns are Morley, Palmerston, and Butterworth.

5. Griqua Land West lies to the north of the Orange River. It is a good grazing country. Lead, iron, and coal have been found. Its wealth consists in its valuable diamond fields. It was proclaimed a British Colony in 1876. Griqua Town is the capital.

6. Transvaal (beyond the Vaal) lies between the Vaal and the Limpopo. It is separated from Sofala and Zulu Land by the Lubombo Mountains. It has a fine climate, is well watered, and from its fertility has been called the granary of South Africa. It has rich gold diggings. Ivory is the chief export. It was proclaimed British territory in 1877. Pretoria is the capital. Potchefstroom, on a tributary of the Vaal, is the largest town.

7. Natal lies to the north of the Transkei Territory. The surface is undulating and well watered. The climate is healthy, and the soil fertile. The chief products are cotton, indigo, sugar, coffee, and tobacco. Superior coal has been found in the interior; building stone is found all over its surface; and iron ore is abundant. Natal was made a separate Colony in 1856.

Pietermaritzburg (7,000) the capital, is connected with Cape Town by railway. D'Urban is the seaport.



CAPE TOWN AND TABLE MOUNT, FROM TABLE BAY.

the north by Matabele, and south by the Cape Colony and the Transvaal. The Transvaal districts are

| sq. miles. | Population. |
|------------|-------------|
| 487        | 634,783     |
| 463        | 86,201      |
| 293        | 128,176     |
| 432        | 254,500     |
| 462        | 40,377      |
| 107        | 315,600     |
| 434        | 1,463,937   |
| 750        | 355,500     |

and on the north by the Atlantic Ocean.

length, is not lands, the prin- The interior is mountain ranges on either side of nes toward the only other river Atlantic. The The interior is sometimes what is extensive, the heaths numerous. A the bush, pre- the buffalo is a chief exports are ne, and ostrich and the intel- races. These cent tribes, the ch and British. o eastern and

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Natal. It was

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## WESTERN AFRICA—CENTRAL NORTHERN AFRICA—CENTRAL SOUTHERN AFRICA.

135



D'URBAN.

### INDEPENDENT STATES.

1. The **Orange River Free State** lies north-east of Cape Colony Proper, and extends from the River Garie or Vaal, to the Drakenberg Mountains. The surface is an undulating plain, 5000 feet above the sea. **Bloemfontein**, the capital, has a good wool market.

2. **Zulu Land** extends from Natal to the Portuguese possessions. The country is flat and marshy along the coast, but wild and mountainous in the interior. The inhabitants are a tribe of Kaffirs. There are no regularly built towns.

3. **Bechuana Land** lies north of Cape Colony, and between Namaqua Land and Damara Land on the west, and the Transvaal on the east. The lower portion of the river Chobe lies on the northern boundary. The people have attained a moderate degree of civilization; they inhabit large towns and cultivate the soil. **Kuruman** or **Lataku** is the chief town. **Bamangwato**, the principal country of the Bechuanas, extends from the river Chobe, on the north, to the Tropic of Capricorn, on the south, and from the Kalahari Desert, on the west, to Matabele, Makalaka, and the Transvaal, on the east. **Shoshong** (10,000) is the capital. The great **Kalahari Desert**, west of Bechuana Land, has an area of 9000 square miles.

4. **Namaqua Land** lies on the west coast of Africa, between Cape Colony and Damara Land. Area, about 100,000 square miles; population, about 17,000.

5. **Damara Land** extends northward from Namaqua Land to Ovampo. The area is nearly the same as that of Namaqua Land; population, about 121,000. It abounds in copper, of which the natives make rings. These two countries, though at present independent, are coming under British influence, and will probably form part of Cape Colony at no distant date. The Damaras and Namaquas are Hottentot tribes.

### V. WESTERN AFRICA.

**Western Africa** extends from the Senegal to Damara Land. The surface along the coast is flat and low. In the interior there are mountain ranges. The climate is intensely hot and humid, and unhealthy for white people. **Western Africa** comprises **Senegambia**, **Upper Guinea**, and **Lower Guinea**.

1. **Senegambia** extends from the Senegal to Sherboro Island, and from the sea, inland about 300 miles. It is well watered, and the soil is fertile. The rainy season alternates with the Harmattan, a hot, dry wind from the desert. The climate is unhealthy. It is named after the two principal rivers, the Senegal and the Gambia, and is divided into **Native**, **British**, **French**, and **Portuguese Senegambia**.

(a.) **Native Senegambia** is peopled by tribes belonging to the negro race, viz.: the Foolahe in the north, the Jalofos in the centre, and the Mandingoes in the south.

(b.) **British Senegambia** comprises **Sierra Leone** and the **Gambia River Settlements**.

**Sierra Leone** (Lion Mountain) is a peninsula at the mouth of the Rokelle, or Sierra Leone River. The interior is rocky, but the soil is fertile. The climate is so unhealthy that Sierra Leone has been called the white man's grave. Chief exports: timber, hides, cotton, palm oil, ground nuts, and gums. In 1787 Sierra Leone was made a free colony for liberated slaves. The settlement includes the **Isles de Los** and **Sherboro Island**. **Free Town** is the capital.

The **Gambia River Settlements** lie north-west of Sierra Leone and include four settlements, **Bathurst**, **Combo**, **Barra**, and **McCarthy's Island**, and several forts or stations on the Gambia. The exports are ground nuts, hides, and wax. **Bathurst**, the capital, on St. Mary's Island, commands the trade of the Gambia.

(c.) **French Senegambia** includes settlements at **St. Louis**, on Senegal Island, at the mouth of the Senegal; and at **Goree Island**, near Cape Verd.

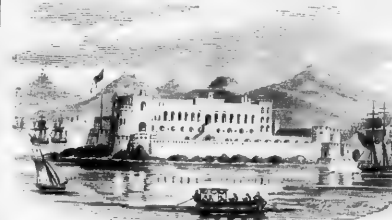
(d.) **Portuguese Senegambia** consists of **Bissau**, on an island of the Bissagos Group, commanding the trade of the Rio Grande; and **Yeba**, a place of less importance.

2. **Upper Guinea** extends from Senegambia to the Cameroon Mountains. The coast is distinguished by special names, viz.: **Grain Coast**, so called from the grains of a sort of pepper grown there, from Cape Mesurado to Cape Palmas; **Ivory Coast**, from Cape Palmas to the Assinie River; **Gold Coast**, between the Assinie and the Rio Volta; **Slave Coast**, between the Volta and the Benin; and **Catalar Coast**, from the Benin to the Cameroon Mountains.

The following are the principal states and settlements in Upper Guinea:

(1.) **Liberia**, occupying the Grain Coast and west of it to the River Shebar, is a successful republic of freed American slaves, and of Negroes re-captured from slave traders. The soil is good, and the climate healthy. **Monrovia**, the capital, exports rice, indigo, and yams.

(2.) **Ivory Coast** is a French protectorate. The French have a settlement at **Grand Bassam**, on this coast, also at **Assinie**, on Gold Coast, and at various places on the Gaboon Coast.



CAPE COAST CASTLE.

**Ashantee**, a powerful native kingdom, lies between the British protectorate on the Gold Coast and the Kong Mountains. **Coomassie**, the capital, 140 miles inland, was taken by the British in 1874. **Salaga**, on the Volta, the largest town, is famed for its horses.

(4.) **Slave Coast** is the seat of three native kingdoms. **Dahomey** lies east of the Volta. **Abomey**, the capital, trades in slaves, ivory, and palm oil. **Whydah** is the seaport. **Yoruba**, east of Dahomey, **Abbeokuta** is the capital. **Benin** extends along the coast on both sides of the Benue River. **Benin** is the capital, and **Bonny** the chief place of trade. Territory south of Dahomey, and the Island of Lagos were taken possession of by Great Britain in 1861 for the purpose of suppressing the slave trade.

**Calabar**, a native kingdom, notorious for human sacrifices, lies east of the delta of the Niger. **Bongo** is the capital, and **Duke Town** the chief seat of trade.

3. **Lower Guinea** extends from the Cameroon Mountains to Cape Frio, and inland about 300 miles. The whole territory belongs to Portugal. It includes **Biafra**, **Loango**, **Congo**, **Angola**, **Benguela**, and **Ovampo**. Ivory, cotton, and gold dust are the chief exports.

**Chief Places**.—**Loango**, on a good bay, has considerable trade. **San Salvador** (30,000), near the Congo. **St. Paul de Loando** (12,000), on the coast of Angola, the capital of the Portuguese possession in Western Africa, exports slaves and ivory. **San Felipe de Benguela** is notorious for its slave trade.

4. **Ovampo** extends from Benguela to Damara Land, and from the Atlantic to the Embara River. The inhabitants are Hottentots.

### VI. CENTRAL NORTHERN AFRICA.

1. **Sahara**, or the **Great Desert**, is a vast region extending from the Atlantic to the Nile Valley, and from the Barbary States to Soudan. It has often been pictured as a monotonous and immense expanse of sand, but nothing could be more erroneous, as the greatest variety exists in the physical configuration of its surface, as well as in its geological features. Fertile tracts in the desert, called *oases*, yield dates and grain, and afford pasture for sheep and goats. The principal oases in Eastern Sahara are **Gadames**, **Fozzan** (capital, **Mourzouk**), and **Air** or **Auben** (capital, **Agades**); and in Western Sahara, **Tuat**, **Tendeni**, and **Arawan**.

The commerce of the Sahara consists chiefly of gold, ostrich feathers, slaves, ivory, iron, and salt, exchanged for manufactured goods, and transported across the desert by great caravans.

2. **Soudan** or **Nigritia** extends from Senegambia to Kordofan, and from the Sahara to Guinea and the unexplored regions of Central Africa. It includes the upper and middle course of the Niger, and Lake Tchad. There are two seasons, the dry and the rainy. It is fertile, healthy, and thickly populated. The chief products are gold dust, cotton, grain of various kinds, palm oil, ivory, and gums. It is divided into not less than sixteen states.

**Chief Places**.—**Timbuctoo** (20,000), called the Queen of the Desert, on the borders of the Sahara, and eight miles from the Niger, is the centre of an extensive caravan trade. **Kabara**, on an island in the Niger, is its port. **Bida** (85,000), on the Niger, **Sego**, the capital of **Upper Bambarra** and **Jenneh**, of **Lower Bambarra**, are places of great trade. **Sokoto** (85,000), on the Zirma, a tributary of the Sokoto, is the most populous city in Central Africa. **Nouka** (50,000) is the capital of **Bornou**, and **Angornou**, on Lake Tchad, is its most commercial city.

### VII. THE LAKE REGION OF CENTRAL AFRICA.

The Lake Region of Central Africa extends from Kordofan and Nubia to the basin of the Zambesi, and from Galla Country and Zanguebar to the unexplored regions of Central Africa. The portion of the Lake Region lying north of the equator has been called the Territory of the White Nile, and is claimed by Egypt. **Gondokoro** or **Ismailia**, on the right bank of the Nile, is the centre of Egyptian influence. Between the Albert and Victoria Nyanzas are the states of **Unyora** and **Uganda**. **Uzinza** lies south-west, and **Unyamusi**, the country of the mc an, south of Victoria Nyanza.

### VIII. CENTRAL SOUTHERN AFRICA

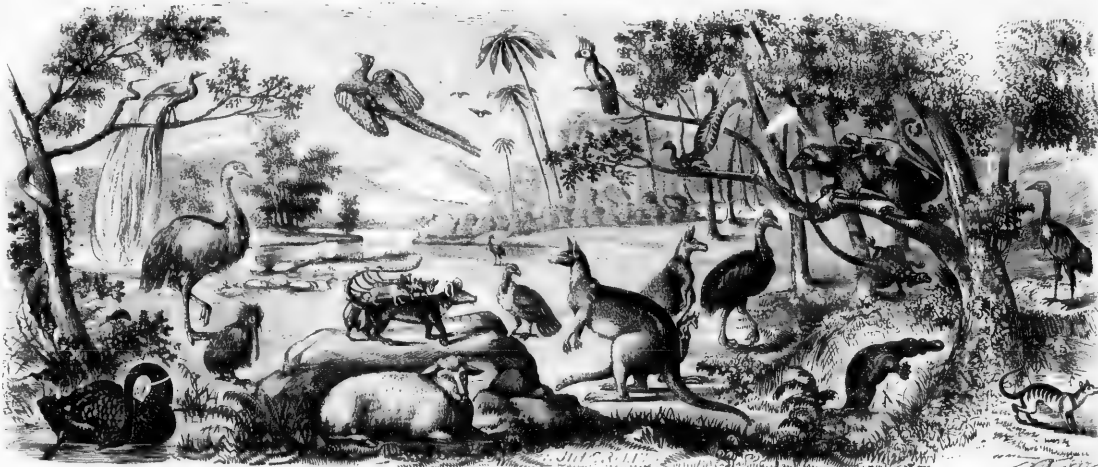


VILLAGE IN CENTRAL SOUTHERN AFRICA.

Extends from about the tenth degree of South latitude, on the north, to the Tropic of Capricorn, on the south; and from Lower Guinea, on the west, to Mozambique, on the east. The principal subdivisions are, **Londa** and **Lobal** on the Upper Zambesi; **Mokofelo** on the middle Zambezi (capital, **Unyanti**); and **Banyai** and **Matabele**, between the Zambesi and the Limpopo.

## PART VII.

### OCEANIA.



PRINCIPAL ANIMALS OF OCEANIA.

**General Physical Features.**—No portion of the surface of the globe has more numerous inequalities; and in none, except America, are the chains of mountains so striking and have so marked a direction from north to south; though about the middle, they are diverted from west to east. Throughout the whole range of the Polynesian and Australasian islands there is scarcely a league of sea in which coral formations are not in progress. Of these islands some rise in a conical form to a great elevation, while others have for their base a reef of coral rocks, generally arranged in a circular form. Some are almost level with the sea, others are elevated hundreds of feet.

**I. Oceania** comprises the Continent of Australia, and the islands and archipelagoes, lying chiefly in the Pacific Ocean, between the south-eastern shores of Asia and the western shores of America. It is separated from Asia by the straits of Malacca and the Chinese Sea.

**2. Position.**—It extends from the parallel of  $27^{\circ} 45'$  N. Lat. to that of  $54^{\circ} 50'$  S. Lat.; and from the meridian of  $95^{\circ} 25'$  E. Long. to that of  $109^{\circ} 17'$  W. Long.

**3. Extremities.**—North, the *Bonin Islands*; south, *Macquarie Island*; east, *Easter Island*; west, *Acheen Head*, in Sumatra.

**4. Extent.**—The length from west to east is nearly 11,000 miles, and the breadth from north to south about 5700 miles. The land area is estimated at 4,200,000 square miles.

**5. Population.**—The estimated population amounts to about 37,500,000.

**6. Divisions.**—Oceania is generally distributed into four divisions, viz.:

(A.) *Australasia* in the south-west, (B.) *Malaysia* in the north-west, (C.) *Micronesia* in the north-east, and (D.) *Polynesia* in the south-east. The chief members of each division are given in the following table:

#### 7. DIVISIONS, AND PRINCIPAL ISLANDS AND ISLAND-GROUPS OF OCEANIA.

##### I. AUSTRALASIA.

| Name of Island or Group.            | Position.                                | Area in Eng. sq. miles. | Population (about) | Capital or Chief Place. | Lat.                | Long.                | Where Situated.                    | Population of Capital. |
|-------------------------------------|------------------------------------------|-------------------------|--------------------|-------------------------|---------------------|----------------------|------------------------------------|------------------------|
| 1. Australia (Continent) . . . . .  | Between Indian Ocean and S. Pacific.     | 2,945,230               | 2,032,670          | Melbourne . . . . .     | $37^{\circ} 49' S.$ | $144^{\circ} 50' E.$ | On the River Yarra Yarra . . . . . | 251,000                |
| 2. Tasmania . . . . .               | South of Australia.                      | 26,215                  | 107,000            | Hobart Town . . . . .   | $42^{\circ} 53' S.$ | $147^{\circ} 21' E.$ | On the River Derwent . . . . .     | 20,000                 |
| 3. New Zealand . . . . .            | South East of Australia . . . . .        | 165,312                 | 457,330            | Wellington . . . . .    | $41^{\circ} 0' S.$  | $174^{\circ} 30' E.$ | On Port Nicholson . . . . .        | 18,553                 |
| 4. Papua or New Guinea . . . . .    | North of Australia . . . . .             | 300,000                 | 1,000,000          | Doreh . . . . .         | —                   | —                    | On the N. W. Coast . . . . .       | —                      |
| 5. Arroo Isles . . . . .            | South of New Guinea . . . . .            | 1,000                   | 60,000             | Dobbo . . . . .         | —                   | —                    | On the Island Warud . . . . .      | —                      |
| 6. Timorlaut . . . . .              | South West of Arroo Isles . . . . .      | 1,500                   | —                  | —                       | —                   | —                    | —                                  | —                      |
| 7. Admiralty Isles . . . . .        | North of New Guinea . . . . .            | 800                     | —                  | —                       | —                   | —                    | —                                  | —                      |
| 8. New Britain . . . . .            | East of New Guinea . . . . .             | 11,200                  | —                  | —                       | —                   | —                    | —                                  | —                      |
| 9. New Ireland . . . . .            | North East of New Britain . . . . .      | 4,350                   | —                  | —                       | —                   | —                    | —                                  | —                      |
| 10. Salomon Isles . . . . .         | South East of New Ireland . . . . .      | 12,900                  | —                  | —                       | —                   | —                    | —                                  | —                      |
| 11. Queen Charlotte Isles . . . . . | South East of Salomon Isles . . . . .    | 400                     | —                  | —                       | —                   | —                    | —                                  | —                      |
| 12. Louisiade Archipelago . . . . . | E. S. E. of New Guinea . . . . .         | 600                     | —                  | —                       | —                   | —                    | —                                  | —                      |
| 13. New Hebrides . . . . .          | South of Queen Charlotte Isles . . . . . | 5,720                   | 150,000            | —                       | —                   | —                    | —                                  | —                      |
| 14. Loyalty Islands . . . . .       | South of New Hebrides . . . . .          | 820                     | 13,334             | —                       | —                   | —                    | —                                  | —                      |
| 15. New Caledonia . . . . .         | South of the New Hebrides . . . . .      | 6,785                   | 58,800             | Noumea . . . . .        | —                   | —                    | On an isthmus of New Cal. . . . .  | —                      |

##### II. MALAYSIA.

|                                        |                                              |         |            |                       |                     |                      |                                      |         |
|----------------------------------------|----------------------------------------------|---------|------------|-----------------------|---------------------|----------------------|--------------------------------------|---------|
| 1. Sunda Islands . . . . .             | In the S. and W. of Malaysia . . . . .       | 263,388 | 23,000,000 | Batavia, &c. . . . .  | $6^{\circ} 8' S.$   | $106^{\circ} 50' E.$ | On N. coast of Java . . . . .        | 100,000 |
| 2. Borneo . . . . .                    | North of Java . . . . .                      | 280,000 | 1,750,000  | Bruni, &c. . . . .    | $4^{\circ} 25' N.$  | $114^{\circ} 55' E.$ | On N. W. coast of Borneo . . . . .   | 40,000  |
| 3. Celebes . . . . .                   | East of Borneo . . . . .                     | 73,000  | 2,000,000  | Manggassara . . . . . | $5^{\circ} 6' S.$   | $110^{\circ} 23' E.$ | On S. W. pen. of Celebes . . . . .   | 20,000  |
| 4. Malacca, or Spice Islands . . . . . | Between Celebes and Papua . . . . .          | 42,420  | 198,000    | Ambon . . . . .       | $3^{\circ} 35' S.$  | $128^{\circ} 0' E.$  | On the Island Ambon . . . . .        | 15,000  |
| 5. Philippine Isles . . . . .          | In the N. E. of Malaysia . . . . .           | 65,804  | 6,164,000  | Manila . . . . .      | $14^{\circ} 30' N.$ | $121^{\circ} 0' E.$  | On S. W. coast of Luzon . . . . .    | 100,000 |
| 6. Sulu Group . . . . .                | Between Borneo and the Philippines . . . . . | 450     | 200,000    | Sulu . . . . .        | —                   | —                    | On the N. W. coast of Sulu . . . . . | 6,000   |
| 7. Sanghir Group . . . . .             | North of Celebes . . . . .                   | 100     | 12,000     | —                     | —                   | —                    | —                                    | —       |

##### III. MICRONESIA.

|                                        |                                               |       |        |                    |                     |                      |                                      |        |
|----------------------------------------|-----------------------------------------------|-------|--------|--------------------|---------------------|----------------------|--------------------------------------|--------|
| 1. Bonin Isles . . . . .               | 100 miles S. E. of Japan . . . . .            | 100   | —      | —                  | —                   | —                    | —                                    | —      |
| 2. Ladrone or Marianne Isles . . . . . | S. S. E. of the Bonin Isles . . . . .         | 417   | 8,000  | Agaña . . . . .    | —                   | —                    | On the Island Guahan . . . . .       | 5,000  |
| 3. Pelew Isles . . . . .               | East of Mindanao in the Philippines . . . . . | 304   | 10,000 | —                  | —                   | —                    | —                                    | —      |
| 4. Caroline Isles . . . . .            | East of the Pelew Isles . . . . .             | 534   | 18,800 | —                  | —                   | —                    | —                                    | —      |
| 5. Marshall Archipelago . . . . .      | East of the Caroline Isles . . . . .          | 725   | 10,500 | —                  | —                   | —                    | —                                    | —      |
| 6. Gilbert Isles . . . . .             | South of the Marshall Arch . . . . .          | 235   | 40,000 | —                  | —                   | —                    | —                                    | —      |
| 7. Sandwich Isles . . . . .            | In the N. E. of Oceania . . . . .             | 7,630 | 56,807 | Honolulu . . . . . | $21^{\circ} 20' N.$ | $157^{\circ} 53' W.$ | On the S. W. side of Oahu I. . . . . | 20,000 |

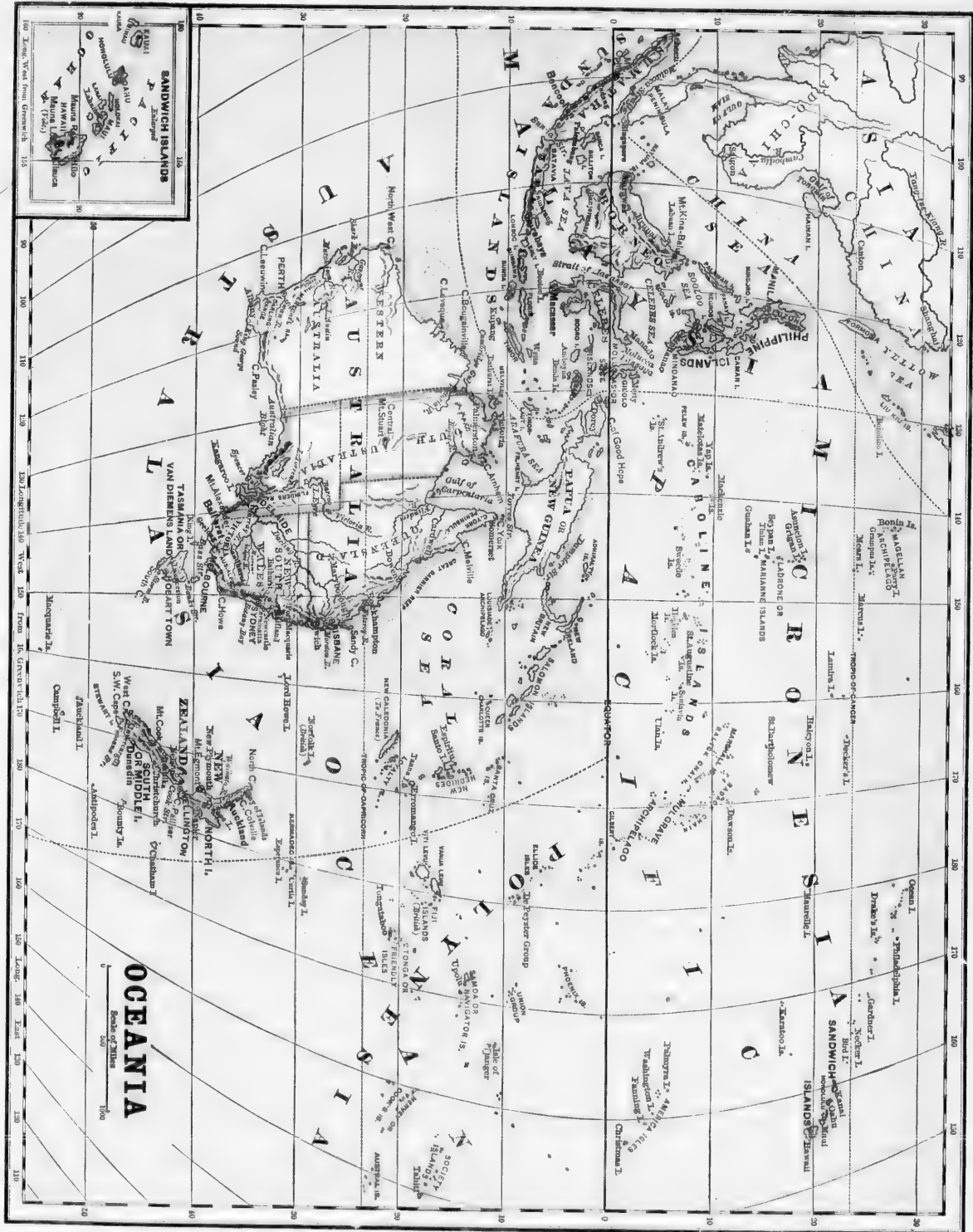




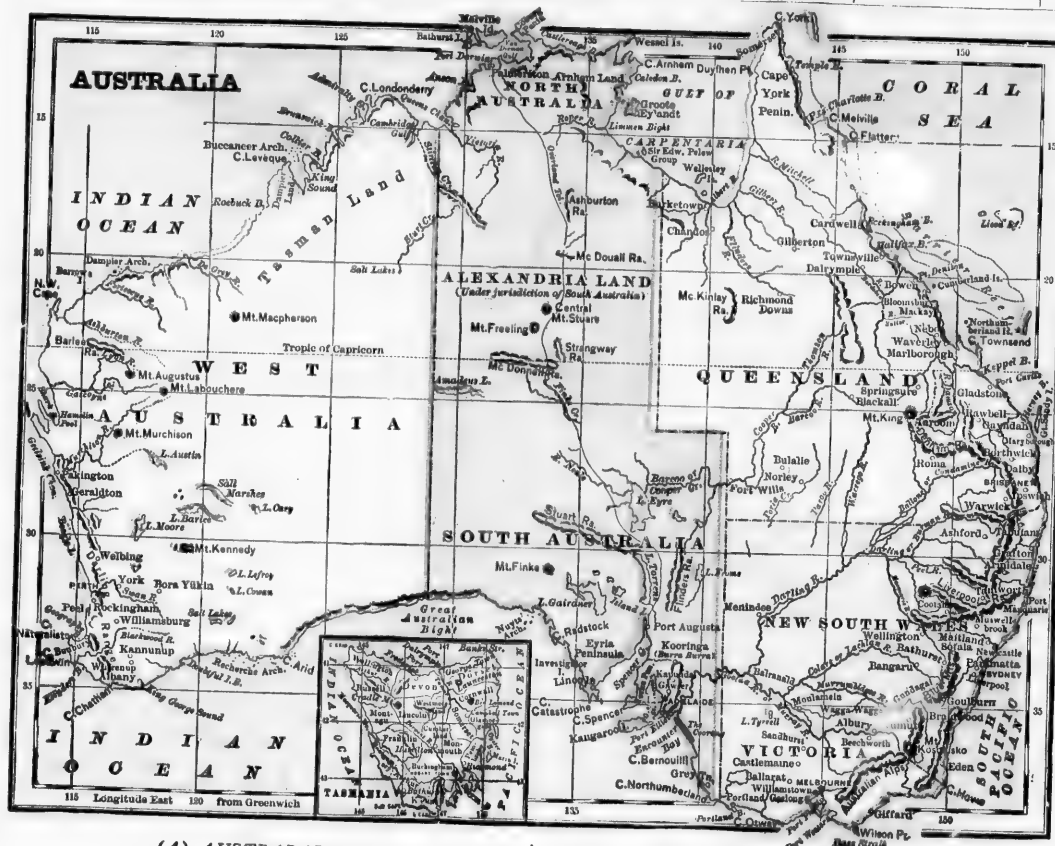
to that of 54° 50' 17" W. Long.  
 ... Islands; east,  
 ... and the breadth  
 ... at 4,200,000

... 7,500,000.  
 ... visions, viz.:  
 ... (C) *Micronesia*  
 ... members of each

| Population of Capital | Population of Capital |
|-----------------------|-----------------------|
| 251,000               | 20,000                |
| 184,553               | 184,553               |
| 100,000               | 40,000                |
| 20,000                | 10,000                |
| 10,000                | 5,000                 |
| 5,000                 | 2,500                 |
| 2,500                 | 1,250                 |
| 1,250                 | 625                   |
| 625                   | 312                   |
| 312                   | 156                   |
| 156                   | 78                    |
| 78                    | 39                    |
| 39                    | 19                    |
| 19                    | 9                     |
| 9                     | 4                     |
| 4                     | 2                     |
| 2                     | 1                     |
| 1                     | 0                     |



| Name of Island or Group.         | Position.                     | Area in Eng.<br>sq. miles. | Population<br>(about) | Capital<br>or Chief Place. | Lat.     | Long.      | Where Situated.               | Population<br>of Capital. |
|----------------------------------|-------------------------------|----------------------------|-----------------------|----------------------------|----------|------------|-------------------------------|---------------------------|
| 1. Fiji, or Viti Isles.          | East of the New Hebrides.     | 8,034                      | 123,000               | Levuka.                    | —        | —          | On Ovalau Island.             | —                         |
| 2. Samoa, or Navigators Islands. | E. of the Fiji Isles.         | 1,163                      | 36,800                | Apia.                      | —        | —          | On Upolu Island.              | —                         |
| 3. Tonga, or Friendly Islands.   | S. E. of the Fiji Isles.      | 406                        | 28,000                | Nukunola.                  | —        | —          | On Tongatabu Island.          | —                         |
| 4. Hervey, or Cook Islands.      | East of the Tonga Isles.      | 100                        | 14,000                | Avarua.                    | —        | —          | On Rarotonga Island.          | —                         |
| 5. Society Islands.              | N. E. of the Hervey Isles.    | 280                        | 24,900                | Papeiti.                   | —        | —          | On the N. W. coast of Tahiti. | —                         |
| 6. Austral Islands.              | South of the Society Isles.   | 56                         | 700                   | —                          | —        | —          | —                             | —                         |
| 7. Tuamotou, or Low Arch.        | East of the Society Isles.    | 2,572                      | 8,000                 | —                          | —        | —          | —                             | —                         |
| 8. Gambier Islands.              | South of the Low Archipelago. | 11                         | 1,500                 | —                          | —        | —          | —                             | —                         |
| 9. Marquesas.                    | North of the Low Archipelago. | 479                        | 0,000                 | —                          | —        | —          | —                             | —                         |
| 10. Easter Isle.                 | S. E. of the Low Archipelago. | 40                         | 1,800                 | —                          | 27. 6 S. | 109. 17 W. | —                             | —                         |



(2.) **AUSTRALASIA.**

1. **Australasia, or Southern Asia,** also called **Melanesia, or Black Asia,** on account of the dark color of the aborigines, forms the south-west division of Oceania.

2. **Position.**—It extends from the equator to  $54^{\circ} 50'$  S. Lat., and from  $113^{\circ}$  to  $180^{\circ}$  E. Long.

3. **Boundaries.**—It is bounded on the north-west by Malaysia; on the north-east and east by the Pacific; and on the south and west by the Indian Ocean.

4. **Extent.**—Its area is estimated at 3,400,000 square miles, or about the same as that of the Dominion of Canada.

5. **Population.**—The estimated population amounts to about 4,000,000.

6. **Divisions.**—The principal members are given in Table 7, p. 136.

**Australia**, the smallest continent in the world, is noted for its compactness, its island form, its vast plains, its great mineral wealth, and its flocks of sheep and herds of cattle.

1. **Boundaries.**—Australia is bounded on the north by the Arafura Sea and Torres Strait; on the east by the Coral Sea and the Pacific Ocean; on the south by Bass Strait and the Indian Ocean; and on the west by the Indian Ocean.
2. **Form.**—Australia consists of a large hexagonal-shaped portion of land, the sides of which respectively face north, north-east, east, south, west, and north-west.
3. **Position.**—It extends from  $10^{\circ} 41'$  to  $39^{\circ}$  S. Lat., and from  $113^{\circ}$  to  $153^{\circ}$   $38'$  E. Long.
4. **Extreme Points.**—North, *Cape York*; south, *Cape Wilson*; east, *Cape Byron*; west, *Steep Point*.
5. **Extent.**—The extreme length from west to east is about 2400 miles, and the extreme breadth from north to south about 1930 miles. The area is estimated at 2,945,227 square miles, or more than three-fourths the size of Europe, or is equal to a square of 1716 miles. The coast line is about 8000 miles, or one mile of coast for 368 miles of surface.
6. **Population.**—The estimated population amounts to 2,053,000, including the natives, who are estimated to number about 55,000.
7. **Divisions.**—Australia is a British possession. Its divisions are shown in the following Table:

THE POLITICAL DIVISIONS OF AUSTRALIA.

| Name of Colony.    | Position.                          | Area in Eng. sq. miles. | Population (about). | Capital.   | S. Lat. | E. Long. | Where Situated.    | Population of Capital. |
|--------------------|------------------------------------|-------------------------|---------------------|------------|---------|----------|--------------------|------------------------|
| 1. Queensland      | In the N. E. of the Continent.     | 688,259                 | 203,084             | Brisbane.  | 27° 29' | 153° 15' | River Brisbane.    | 32,012                 |
| 2. New South Wales | South of Queensland.               | 308,560                 | 682,212             | Sydney.    | 33. 29' | 151. 14' | Port Jackson.      | 183,000                |
| 3. Victoria        | South of New South Wales.          | 88,451                  | 807,634             | Melbourne. | 37. 49' | 144. 57' | River Yarra-Yarra. | 230,678                |
| 4. West Australia  | West of Colonies Nos. 1, 2, and 3. | 904,133                 | 239,864             | Adelaide.  | 34. 57' | 138. 38' | River Torrens.     | 85,000                 |
| 5. South Australia | West of S. Australia.              | 975,924                 | 27,876              | Perth.     | 31. 57' | 115. 53' | Swan River.        | 7,000                  |
| Native Population  |                                    | 85,000                  |                     |            |         |          |                    |                        |

**8. Physical Coast Features.**—(1.) **Islands.**—*Bathurst* and *Melville*, off the north-west coast of North Australia; *Groote Eylandt* or Great Island, and *Wellesley*, in the Gulf of Carpentaria; *Great Sandy* and *Stradbroke*, off the coast of Queensland; *Flinders*, *Furneaux*, and *King*, in Bass Strait, south of Victoria; *Kangaroo Island*, at the entrance of the Gulf of St. Vincent; *Dirk Hartog*, off the west coast of West Australia.

**NOTE.** The *Great Barrier Reef* extends along the north-east coast from 9° 15' to 24° 30' S. Lat., a distance of about 1200 miles, with a breadth varying from a few hundred yards to a mile. It forms a natural breakwater. The channel between it and the main land is from ten to sixty miles wide.

(2.) **Peninsulas.**—*Arnhem Land*, between the Arafura Sea and the Gulf of Carpentaria; *Coburg Peninsula*, in the north of Arnhem Land; *York Peninsula*, between the Gulf of Carpentaria and the Channel formed by the Great Barrier Reef; *York Peninsula*, between the Gulf of St. Vincent and Spencer Gulf; *Eyria Peninsula*, between Spencer Gulf and the Great Australian Bight.

(3.) **Capes.**—**On the North Coast.**—*Cape Van Diemen*, in Melville Island; *Point Dale* and *Cape Arnhem* in North Australia; *Cape York*, north of Queensland, the most northern extremity of the continent.

**On the North-East Coast.**—*Cape Melville*, *Cape Flattery*, *Cape Townsend*, and *Sandy Cape*, in Queensland.

**On the East Coast.**—*Cape Byron*, the extreme eastern point of the continent; and *Cape Howe*, the south-east extremity of the continent, in New South Wales.

**On the South Coast.**—*Cape Wilson*, the extreme south point of the continent *Cape Otway*, south of Victoria; *Cape Spencer* and *Cape Catastrophe*, at the entrance to Spencer Gulf in South Australia; *Cape Arid* and *Point d'Entrecasteaux*, in West Australia.

**On the West Coast.**—*Cape Leeuwin*, or *Lioness*, so named from the vessel which first sighted it, at the south-west extremity of the continent; *Cape Naturaliste*; *Sleep Point*, the most western point of the continent; *Cape Cuvier*; and *North West Cape*.

**On the North-West Coast.**—*Cape Leveque* and *Cape Londonderry*, in West Australia.

(4.) **Gulfs and Bays.**—**On the North Coast.**—*Van Diemen Gulf*, between Melville Island, Coburg Peninsula, and the mainland. *Arnhem Bay*, in North Australia.

*Gulf of Carpentaria*, discovered in 1606, penetrates 400 miles inland, between Arnhem Land and York Peninsula.

**On the North-East Coast.**—*Princess Charlotte*, *Halifax*, and *Hervey Bays*, in Queensland.

**On the East Coast.**—*Moreton Bay*, in Queensland; *Shoal*, *Botany*, and *Jarvis Bays*, in New South Wales.

**On the South Coast.**—*Port Philip* and *Portland Bays*, in Victoria; *Encounter Bay*, *St. Vincent*, and *Spencer Gulfs*, in South Australia. The *Great Australian Bight* extends from *Cape Catastrophe*, in South Australia, to *Cape Arid*, in West Australia, 600 miles apart.

**On the West Coast.**—*Géographie Bay* and *Shark Bay*.

**On the North-West Coast.**—*King Sound*, *Collier Bay*, *Exmouth*, *Admiralty*, and *Cambridge Gulfs*, the latter is 20 miles wide at the mouth, and extends inland 75 miles.

(5.) **Straits.**—*Clarence Strait*, between the mainland and Bathurst and Melville Islands; *Dundas Strait*, between Melville Island and Coburg Peninsula; *Torres Strait*, 90 miles wide, between Australia and New Guinea, discovered by Torres in 1606; *Bass Strait*, 120 miles wide, between Australia and Tasmania, discovered by Bass in 1797.

**9. Physical Features of the Interior.**—(1.) **Mountains.**—The mean elevation of Australia is 500 feet. It is nearly encircled by a girdle of coast ranges of moderate height, which enclose the vast interior sandstone plain of the continent.

(a.) On the eastern side of the continent is the *Dividing Range*, or *Eastern Cordillera*. It begins at Cape Wilson in the south and extends northwards to Cape York. Its distance from the coast varies from 50 to 150 miles. Special names are applied to different parts of the range. The southern portion, which is the highest, is called the *Australian Alps*. Highest summit, *Mount Kosciusko*, 7176 feet. *Mount Hotham* and *Mount Latrobe* rival it in altitude. North of the Australian Alps, in the neighborhood of Sydney, the range is called the *Blue Mountains*. Highest summits, *Mount York*, 3440 feet, and *Mount Canobolas*, west of Bathurst, 4610 feet. North of

the Blue Mountains the chain is called the *Liverpool Range*, in 31° 40' S. Lat., it branches westward and extends far into the interior. Highest summit, *Mount Lindesay*, on the boundary between Queensland and New South Wales, 5700 feet. *Mount Wingen*, a remarkable burning mountain, is situated on the eastern slope of the Liverpool Range. Proceeding northward through Queensland, the range rapidly decreases in altitude, being less than 1000 feet as it approaches Cape York.

(b.) The crest of the northern margin of the interior plain, distant 200 miles from the sea, does not exceed 1000 feet in height, though higher ranges are believed to exist in Arnhem Land.

(c.) On the North-West Coast, between 16° and 21° S. Lat., there is a break in the rim of high land. A well-defined range skirts the west coast from Shark Bay to Point d'Entrecasteaux. It is called in different parts *Victoria Range*, *Herschel Range*, and *Darling Range*. Highest summit, *Tulbanop*, 5000 feet.

(d.) The South Coast, from King George's Sound to Spencer Gulf, is formed by granite and sandstone cliffs, through which, for 1200 miles, not a single river reaches the sea.

In South Australia, the *Gawler Range* runs east and west between Lake Gairdner and the sea, forming the northern boundary of Eyria Peninsula. *Flinders Range*, 4000 feet, runs north from the head of Spencer Gulf to the parallel of 30° S. Lat. on the east side of Lake Torrens, and then turning westward is continued to the north west by the *Stuart Range*, discovered in 1858. *Mount Lofty Range*, 2412 feet runs north from Kangaroo Island, along the east side of Spencer Gulf to the parallel of 30° S. Lat.

In Victoria, the *Gramplians*, extend northward from Cape Nelson to *Mount William*, 4700 feet. The *Pyrenees Range*, runs north between the Avoca and Hopkins rivers.

(e.) In the west of New South Wales are *Grey Range*, *Stanley Range*, and *Conbaralpa Range*. In the west of Queensland are *Standish Range* and *McKinlay Range*. All these are meridian ranges.

(2.) **Plateaus.**—Arnhem Land in the north is a plateau from 3000 to 4000 feet high. A flat table land of granite and sandstone extends northward from the Great Australian Bight.

(3.) **Plains.**—The whole of the interior appears to be an immense plain, interspersed with grassy meadows, lightly timbered land, salt marshes, swamps, and sandy or stony deserts.

(4.) **Rivers.**—The Rivers may be arranged as follows:

I. The Pacific System; II. The Indian Ocean System; III. The Continental System.

I. The Pacific System.

(A.) **Queensland.**—The *Burke* flows south and enters the sea in 20° S. Lat; it receives the *Beyland* with its affluent the *Suttor*. The *Fitzroy*, formed by the *Mackenzie* and *Dawson*, enters the sea at Keppel Bay; at its mouth is Rockhampton. The *Brisbane* enters the sea at Moreton Bay; and it is navigable for 75 miles; at its mouth is Brisbane, the capital of the Colony.

(B.) **New South Wales.**—The *Clarence*, navigable for 60 miles, ends at Shoal Bay; the *Hunter*, 200 miles long, ends at Newcastle Harbor; the *Hawkesbury* ends at Broken Bay; the *Shoalhaven* flows through tremendous gullies from 1200 to 1500 feet deep.

II. The Indian Ocean System. —(A.) **South Coast Section.**

(a.) **Victoria**, the *Yarra-Yarra* (Flowing-Flowing), and the *Glenelg*.

(b.) **South Australia.**—The *Murray*, the largest river of Australia, rises near Mount Kosciusko, flows west and north-west between Victoria and New South Wales to the meridian of 141° E. Long., continues west through South Australia to 139° 45', where it turns sharply south, and, forming the shallow Lakes Victoria and Albert, enters Encounter Bay. It is navigable to Albury. Length, 2000 miles; area of basin, 500,000 square miles.

It receives on the left bank, the *Mitta-Mitta* near Albury, the *Ovens*, the *Goulburn*, the *Camargo*, which joins it at Echuca, and the *Loddon*. It receives on the right bank the *Murrumbidgee*, or *Beautiful*, which rises east of Mount Kosciusko, and flows north and west past Wagga-Wagga; it is navigable to Gundagai, and receives on the right, the *Zachlan*, which rises west of the Blue Mountains near Goulburn. The *Edward*, which receives many affluents, joins the Murray near Faversham. The *Darling* rises to the south of the Darling Downs, flows west and south, and joins the Murray at Wentworth. It receives on the right bank, the *Condamine*, the *Warrego*, and the *Parram Creek*; on the left bank, the *Gwydir* or *Merri River*, the *Macquarie*, 280 miles long, which loses itself in the Macquarie marshes, from which issue streams flowing to the *Darling* and the *Bogan*.



(B.) West and North-West Coast Section.—The Swan River, on which stands Perth, the capital of West Australia, the Murchison, the Gascoyne, and the De Grey River.

(C.) North Coast Section.—(1.) North Australia.—The Victoria flows north-west through North Australia, and enters the eastern part of Cambridge Gulf by an estuary called Queen's Channel, 26 miles wide. It is navigable for large vessels for 60 miles from its mouth. The Roper, navigable for 100 miles, enters the Gulf of Carpentaria on the west side. The Albert, the Flinders, the Gilbert, and the Mitchell, all flow into the Gulf of Carpentaria.

III. The Continental System.—(A.) Victoria.—The Avoca from the Pyrenees runs parallel to the Lyndon, and ends in swamps and salt lakes, the largest of which is Lake Tyrell. The Wimmera rises in the Pyrenees and Grampians, and ends in Lake Henderson and other lakes and swamps.

(B.) Queensland and South Australia.—The Cooper, the chief feeder of Lake Eyre, is connected with the Thomson and Barcoo from Queensland.

(C.) West Australia.—Stuart's Creek flows northward, but whether it joins the Victoria has not been ascertained.

(5.) Lakes.—(A.) Victoria.—Lake Tyrell and Lake Hindmarsh are salt.

(B.) South Australia.—Lake Eyre, the largest in Australia, is shallow and swampy and is north of the Stuart Range. Its shores are encrusted with salt. Its chief feeder is the Barcoo. Height above the sea, 70 feet; area, 4100 square miles. Lake Torrens, 12 miles from the head of Spencer Gulf, into which it sends a stream in wet seasons, lies west of the Flinders Range. Length, 120 miles. It is at a less height above the sea than Lake Eyre. Lake Frome, between Mount Lofty Range to the west, and Stanley Range and Grey Range to the east. Lake Gairdner, north of the Gawler Range.

(C.) West Australia.—Lakes Lefroy, Barlee, Moore, and Austin.

10. Animals.—Marsupial or pouched animals form four-fifths of the mammals. Well known specimens are the great kangaroo, with a pouch for her young; the kangaroo rat, which carries her young on her back; the wombat; the petaturus or flying opossum; and the bandicoot. The platypus is a very remarkable animal. In shape and fur it resembles an otter, but it has a duck's bill and webbed feet. In Northern Australia the pteropus or flying fox is found in great numbers, and the dingo or wild dog is found in the same district. None of the great races of the Asiatic quadrupeds have extended to Australia. Among the birds are the apteryx or wingless bird, the black swan, and the lyre bird, the tail feathers of which resemble a harp. The other birds are the emu or cassowary, the argus pheasant, and the parrot. Among the reptiles, the flying dragon is the most remarkable.

11. Vegetation.—The native trees are chiefly evergreens, and are very peculiar, such as the lofty leathery-leaved gum and the cassowary trees. In West Australia, there are forests of karri, a gum tree, which rivals in height the great trees of California, and of the jarrah, one of the most durable woods, both of which are serviceable in ship-building. There is no Australian cereal; but wheat, maize, and other cereals have been introduced into the different settlements, and are cultivated with success, and also numerous other tropical and European plants.

12. Minerals.—In addition to the gold fields, Australia is rich in iron, copper, tin, lead, zinc, coal, and other minerals.

13. Climate.—The whole northern part of Australia, to the extent of one-third of the continent, is in the torrid zone, and is subject to high temperature and periodical rains. The remaining two-thirds are in the temperate zone, where the climate, although often variable, is salubrious. From the interior come hot winds. Long droughts and long rains periodically prevail. The cold is never of long duration; the epochs of the seasons are exactly opposed to those of Europe.

14. Natives.—The Aborigines of Australia consist of various tribes called Austral-Negroes. They belong to the Australoid family. They are of a diminutive size, rarely exceeding five feet in height, and have spare and puny frames, with a skin of a dark coppery or sooty color, flat noses, protruding lips, projecting brow ridges, and black and curly but not crisp or woolly hair. They are a degraded race, and in number do not exceed 60,000.

15. Colonies.—(A.) Queensland, established in 1859, occupies the north-eastern part of Australia. The soil and climate are peculiarly adapted for the growth of cotton. The standard crops are maize, cotton, and sugar. About 200,000 square miles are occupied by pastoral stations. It is famous for its sheep and cattle. Its chief exports are wool, tallow, gold-dust, cotton, preserved meat, and timber. Its minerals are gold, copper, lead, tin, mercury, coal, diamonds, sapphires, and opals.

(a.) Chief Places.—Brisbane (32,000), the capital, on Brisbane river, 25 miles from its mouth at Moreton Bay, in an agricultural region; Ipswich (5091), on the river Bremer, at the head of Moreton Bay, a commercial depot for wool and cotton; Rockhampton (5407), on the Fitzroy, 45 miles from its mouth, the chief town in North Queensland; Somerset, near Cape York, the most northern town in Australia, was established as a naval rendezvous and coal depot for Her Majesty's ships.

(B.) New South Wales, established in 1788, is the oldest Colony in Australia. It lies between Queensland and Victoria. The coast line extends from Point Danger to Cape Howe, and is rugged and mountainous, giving a south-eastern slope to the country. The principal mountain ranges are the Blue and Warragong. The Darling is the principal river. The district east of the mountains, from the Bulli Pass to the Shoalhaven, is called Illawarra; the south-east corner Manaro; and the interior, west of the Mountains, Riverina. Wool is the staple production. Gold, silver, iron, copper, tin, and coal are the chief minerals.

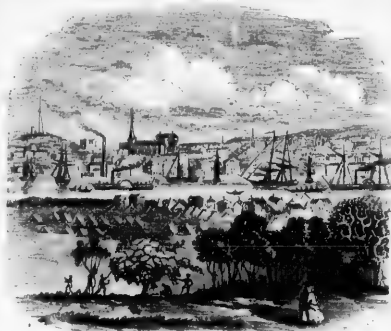
Norfolk Island, 900 miles east of Australia, is a colonial dependency of New South Wales. It is a beautiful island of about 10,000 acres. Until 1856 it was a penal colony, when the inhabitants of Pitcairn Island were brought to it. The Norfolk Island pine is indigenous.

(b.) Chief Places.—Sydney (183,000), the capital, is well situated on Port Jackson, one of the finest harbors in the world, and presents a striking appearance from the water. It is the oldest city in Australia, having been founded in 1788. It contains many fine buildings, among which are the churches, the government house, the mint, the observatory, and the university. Newcastle (19,000), the second city of the colony, at the mouth of the Hunter River, 75 miles from Sydney, is a coal-shipping port. Maitland, on the Hunter, a coal district, from its fertility, is called the granary of the colony. Paramatta (8000), at the head of Port Jackson, 14 miles north of Sydney, is famous for its orange groves and orchards. Goulburn (12,000), 135 miles south of Sydney, is the centre of a great wheat-producing district. Braidwood (12,000), south of Goulburn, is the centre of a mining district. Bathurst (5000), is a gold-mining centre. Albury is at the head of navigation on the Murray.



(C.) **Victoria** occupies the south-eastern portion of Australia. Its coast line, 600 miles in length, extends from Cape Howe to 141° E. Long. Although the smallest colony it is one of the most important and most fertile parts of Australia. Its gold diggings, which were discovered in 1851, are very rich and productive, and the climate would be very agreeable were it not for the hot winds from the interior. Much attention is paid to education.

(c.) **Chief Places.**—**Melbourne** (251,000), the capital, a flourishing city on the Yarra-Yarra, which flows into the important harbor of Port Philip. It contains a university, a public library, an observatory, banks, churches, and other fine buildings. **Sandridge**, 3 miles from Melbourne, on Hobson's Bay, is its port. **Williamstown**, formerly the port of Melbourne, is opposite to Sandridge. **Geelong** (17,200), on the west side of Port Philip, 45 miles south-west of Melbourne, the chief port for the wool of the colony. In the neighborhood



CITY OF MELBOURNE, CAPITAL OF VICTORIA.

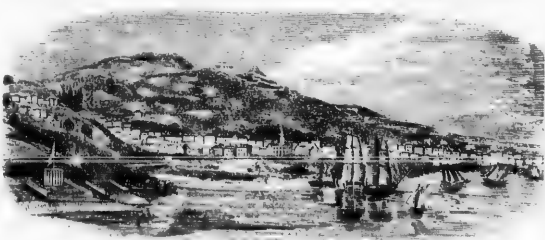
there are excellent vineyards. **Portland** (10,000), on Portland Bay, nearly midway between Melbourne and Adelaide, the emporium of a large agricultural and pastoral district. **Ballarat** (35,000), the second town of the colony, 78 miles north-west of Melbourne, the centre of a fertile agricultural district, and of the richest auriferous district in the world. **Sandhurst** (35,000), formerly Bendigo, and **Castlemaine**, also gold-mining centres, north-west of Melbourne.

(D.) **South Australia** extends through the centre of Australia, from north to south. North of 26° S. Lat. it extends from 129° to 138° W. Long.; south of 26° S. Lat. it extends from 129° to 141° W. Long. Towards the south coast, and along the banks of the Murray, the land is highly fertile, but northward from Lake Torrens, it becomes sterile. It has an extensive Lake district. Its chief inlets are Spencer Gulf and Gulf of St. Vincent. At the mouth of the latter is Kangaroo Island, so named from the large number of kangaroos found on it. Along the western shores of the Gulf of Carpentaria, the country for 100 miles inland is covered with coarse grass. In Arnhem Land there are rich metalliferous deposits. Near the centre of the continent is **Mount Stuart**. A telegraph line has been established between Adelaide and Port Darwin, where the Australian Cable was landed in 1871. The great staples of South Australia are wool, wheat, wine, corn, and copper. Lead, tin, and iron are abundant. The largest copper mines, the Burra-Burra, 5 miles north-east of the Gulf of St. Vincent, are very rich.

(d.) **Chief Places.**—**Adelaide** (85,000), the capital, situated on an extensive plain, seven miles from the Gulf of St. Vincent, and on the coast side is sheltered by the Mount Lofty Range. The Terrens flows through it. It has a park of 10,000 acres, botanic gardens, and many fine public buildings. **Port Adelaide**, on an inlet of the Gulf of St. Vincent. **Glendy**, on the Gulf of St. Vincent, a handsome watering place. **Gawler**, north of Adelaide, a wheat growing district. **Yapunda**, 45 miles north of Adelaide, famous for its copper mines.

(E.) **Western Australia** occupies the whole of the western part of the continent between the Indian Ocean and 129° E. Long. It was originally called the Swan River Settlement, from its black swans. Though largest in extent, it has been the slowest in growth. It was first settled in 1829. The surface is diversified by extensive forests of kauri, jarrah, and sandal wood, tracts of fertile land, and tracts of sand or scrub and spinifex. In the warm district, the vine, the olive, and the fig are cultivated. Wheat and wool are the chief staples. The chief minerals are coal, lead, iron, and copper. There are valuable pearl fisheries on the coast. The climate is temperate and healthy.

(e.) **Chief Places.**—**Perth** (7000), the capital, 12 miles from the mouth of the Swan River. Its port is **Fremantle**. **Albany**, on King George Sound, is an important packet station.



HOBART TOWN, CAPITAL OF TASMANIA.

## (2.) TASMANIA.

Named Van Diemen's Land after the Governor of Batavia, by Tasman, who discovered it in 1643, but now usually called Tasmania, after its discoverer.

1. **Form.**—**Tasmania**, a colony of Great Britain, is an island of triangular shape, the apex pointing south.

2. **Position.**—It lies 120 miles south of Victoria, in Australia, from which it is separated by Bass Strait, and extends from 41° 20' to 43° 40' S. Lat., and from 144° 40' to 148° 20' E. Long.

3. **Extreme Points.**—North-west, **Cape Grim**; north-east, **Cape Portland**; south, **South-east Cape**.

4. **Extent.**—Length from north to south, 180 miles; breadth, 160 miles; area, including the islands which surround it, 26,215 square miles, or nearly equal to that of New Brunswick.

5. **Population.**—The population of the colony amounts to 107,000, all immigrants. The native population is extinct, the last survivor, a woman named Truganini, having died in 1876. It was settled in 1803, and formed into a distinct colony in 1825.

6. **Physical Features.**—The north-east and west shores are bold and rocky. At the north and the south there are good harbors. The interior is mountainous and rugged. No less than sixty peaks are 2000 feet high. Mount Humboldt, 5520 feet, is the highest mountain. Mount Wellington, near Hobart Town, has an altitude of 4166 feet. There are several beautiful lakes in the interior. The chief rivers are the *Derwent*, the *Huon*, and the *Tamar*. Off the north-east angle of the island are the *Furneaux Isles*, of which Flinders is the chief.

7. **Climate.**—The climate is colder and more humid than that of Australia, but is healthy, and well suited to Europeans. The temperature is equable, and resembles that of the south of England. Thunder storms are seldom experienced. September, October, and November form the spring. December is the time of hay harvest, and at the end of January the wheat harvest commences.

8. **Productions.**—The natural products are nearly the same as those of Australia. The chief timber trees are the myrtle, Huon pine, and blue gum. Tin, copper, coal, iron, and gold are the chief minerals. The principal exports are wool, wheat, flour, auriferous quartz, and timber.

9. **Chief Towns.**—**Hobart Town** (20,000), the capital, picturesquely situated on the Derwent, about 20 miles above its mouth in Storm Bay. It contains a college, and many handsome public buildings. **Launceston** (11,000), the chief town in the north, on the Tamar. Other towns, **Georgetown**, at the mouth of the Tamar, and **Brighton**, near Hobart Town.

## (3.) NEW ZEALAND.

Named after Zealand Island, Denmark, by Tasman, the discoverer, in 1642.

1. **Position.**—**New Zealand**, a colony of Great Britain, is situated in the South Pacific, about 1250 miles south-east of Australia. It lies between 34° 26' and 49° 20' S. Lat., and 166° 30' and 178° 40' E. Long.

2. The New Zealand group consists of two large islands, a third of considerable size, the Chatham and Auckland Isles, and a multitude of islets.

The three principal islands are North Island, South Island, and Stewart's Island. South Island is separated from North Island by *Cook's Strait*, 12 miles wide, and from Stewart Isle by *Foveaux Strait*, 18 miles wide.

3. **Extreme Points.**—In North Island, North, **Cape Maria Van Diemen**; east, **East Cape**; and south, **Cape Palliser**.

In South Island, North, **Cape Farewell**; east, **Cape Jackson**; and west, **West Cape**.

In Stewart Isle, the southern most point is **South Cape**.

4. **Form.**—North and Middle Island have a very irregular shape, somewhat resembling a boot turned upside down, with the toe at Cape Maria Van Diemen, and the heel at East Cape. Stewart Island is of triangular shape.

5. **Extent.**—The length of North Island is about 500 miles, and its medium breadth about 90 miles. Its extent is about 44,000 or 45,000 square miles. South Island is also about 500 miles long and averages about 120 miles in breadth, and contains about 59,000 square miles. Stewart's Island contains about 700 square miles.

6. **Population.**—The population amounted in 1878 to 457,330.

7. **Divisions.**—North Island is divided into four, and South Island into five provinces. Stewart Island is uninhabited except by a few natives and whalers.

**Wellington** (18,953) is the capital of the whole colony. The names of the provinces and chief town in each are given in the following table:

## NORTH ISLAND.

| Name of Province    | Position.               | Capital.          | Where Situated.     | Population of Capital. |
|---------------------|-------------------------|-------------------|---------------------|------------------------|
| 1. Auckland .....   | North part of Island... | Auckland.....     | Hauraki Gulf.....   | 25,772                 |
| 2. Taranaki .....   | S. W. part of Island... | New Plymouth..... | West Coast.....     | 4,000                  |
| 3. Wellington.....  | S. of Auckland.....     | Wellington.....   | Port Nicholson..... | 18,953                 |
| 4. Hawke's Bay..... | Middle part of E. coast | Napier.....       | Hawke's Bay.....    | 3,000                  |

## SOUTH ISLAND.

| Name of Province    | Position.                               | Capital.          | Where Situated.            | Population of Capital. |
|---------------------|-----------------------------------------|-------------------|----------------------------|------------------------|
| 1. Nelson.....      | N. end of I. (west part)                | Nelson.....       | Tasman Bay.....            | 7,000                  |
| 2. Marlborough..... | East of Nelson.....                     | Blenheim.....     | Cloudy Bay.....            | 1,000                  |
| 3. Canterbury.....  | Central part of Island (east side)..... | Christchurch..... | Avon R. (Pegasus Bay)..... | 20,043                 |
| 4. Westland.....    | West of Canterbury.....                 | Hokitika.....     | Hokitika River.....        | 5,000                  |
| 5. Otago.....       | South end of Island                     | Dunedin.....      | Port Otago.....            | 23,525                 |

**8. Physical Features.**—(a.) **Bays, in North Island.**—On the north-east coast *Gulf of Hauraki* and *Bay of Plenty*; on the south-east coast, *Hawke's Bay*; on the south coast, *Palliser Bay* and *Port Nicholson*; on the west coast, *Manukau Harbor* and *Kaipara Harbor*.

**In South Island.**—On Cook's Strait, *Tasman* or *Blind Bay*, and *Massey* or *Golden Bay*; on the south-west coast, *Tenarua Bay*.

(b.) **Mountains.**—In North Island.—Three ranges cross the island. (1.) A range extends from Cape Maria Van Diemen to Auckland, and thence along the coast to Mount Egmont 8280 feet high.

(2.) The *Coromandel Range* extends from Cape Colville to *Mount Edgecombe* (9630 feet), and thence southwards as the *Kaimanau Range*. Near its southern extremity are the active volcano *Tongariro*, (6500 feet), and *Ruapehu* (9105 feet).

(3.) A range extends from East Cape to Cape Sinclair. West of the province of Hawke Bay the range is called *Ruahine*, and south of the Manuwatu River, *Tararua*. Highest summit in the north, *Mount Hikurangi*, 5500 feet.

(4.) The *Aorangi Range* runs south through the south-eastern part of Wellington, and ends at Cape Palliser.

**In South Island.**—A mountain range extends from Cape Farewell to West Cape. In the north of Nelson the range is called *Tasman*. Highest summit, *Mount Peel*, 6000 feet. In central Nelson it is called *Spenser*. Highest summit, *Mount Franklin*, 10,000 feet. In Canterbury it is called the *Southern Alps*. Highest summit, *Mount Cook*, 13,200 feet, the culminating point of New Zealand. West of the main range in Nelson is the coast range, called the *Paparoa Mountains*, and east of it, in Marlborough, the *Kaikoura Mountains*, of which *Mount Olin* is 9700 feet high. In the *Look-on Range*, in Marlborough, is *Mount Kaikoura*, 8700 feet. In Stewart Isle, *Mount Asplen*, 3200 feet.

(c.) **Rivers.**—In North Island.—The *Waikato* issues from Lake Taupo, flows first north-west, and then abruptly west to the Pacific. Length, 250 miles. The *Wanganui* rises in a mountainous region south-west of Lake Taupo, flows first south and then south-east, and ends Cook's Strait.

**In South Island.**—The *Clutha* rises in Canterbury, flows south-east through Otago, and enters *Motueux Bay*. Length, 150 miles. It drains Lake Hawea and Lake Wanaka. Its chief tributary on the right bank, the *Kiwarau*, drains Lake Wakatipu. The *Waitaki* forms part of the boundary between Canterbury and Otago. It flows south-east to the Pacific. Its tributaries drain Lakes Tekapo, Pukaki, and Ohau.

(d.) **Lakes.**—In North Island.—*Lake Taupo* is 1337 feet above the sea level. Area, 200 square miles. **In South Island.**—*Lake Wakatipu*, *Lake Teanau*, and *Lake Manapouri*, in Otago.

**9. Climate.**—The climate is humid, mild, and equable. The summer is as cool as in England, and the winter as mild as in the south of France.

**10. Productions.**—All the native trees are evergreens. The Kauri pine, tree ferns, palms, and dax are among the native productions. European grains, fruits, flowers, and vegetables are cultivated with the greatest success. The northern part of New Zealand is admirably adapted for the growth of every kind of grain. The mineral productions are varied and abundant, the chief being gold, coal, silver, and iron. In addition to these, copper, lead, tin, and platinum, are found. Gold and wool are the principal exports.

**11. Animals.**—There are several remarkable specimens of the animal kingdom, the chief among them being the apteryx or wingless bird, the crooked-billed plover, the owl-parrot, and the hatteria, a very peculiar animal, intermediate in structure between lizards and crocodiles. There are no land serpents, and the only mammals are two species of bats.

**12. Aborigines.**—The *Moories*, or natives, of whom there are about 55,000, belong to the Malay family. They are a fine race, tall, muscular, intelligent, and brave, but are savage and ferocious in the extreme when provoked and insulted. They have black curling hair, and, in general, a brown complexion. Many of them tattoo their skin in a singular and fanciful manner.

**13. History.**—These islands were discovered by Tasman in 1642, and the coast was circumnavigated by Captain Cook in 1770. They were first settled in 1814, and were erected into a colony in 1840. A constitution was granted to them in 1852.

**14. Dependent Isles.**—(a.) *Chatham Isles*, 350 miles east of New Zealand, discovered in 1791 by Lieutenant Broughton. The two largest are named Chatham and Pitt. They are fertile, and are clothed with verdure. They have a population of about 170, and are visited by whaling ships for shelter and provisions.

(b.) *Auckland Isles*, 180 miles south of New Zealand, discovered by Captain Bristow in 1806. Auckland, the largest island, is 30 miles long and 15 miles broad. The islands are finely wooded. They are uninhabited, but serve as a station for ships engaged in the whale fishery.

(c.) *Macquarie Isle*, south-west, and *Campbell Isle*, south-east, of the Auckland Isles.

(d.) *Antipodes Isle*, discovered by Captain Pendleton in 1800, is so called from being nearly the opposite to Great Britain. It is situated south-east of New Zealand in 49° 32' S. Lat. and 178° 42' E. Long.

(e.) *Bounty Isles*, east, and *Kermadec Isles*, north-east, of New Zealand.

## (4.) PAPUA, OR NEW GUINEA.

**Papua, or New Guinea**, called by the natives *Tanna Papua*, or *Land of the Crisp-haired*, lies to the north of Australia, from which it is separated by the Arafura Sea and Torres Strait. It is the second largest island in the world. Length, 1450 miles; breadth, 300 miles; area, about 300,000 square miles. It is indented with many deep bays, the largest of which are Geelvink Bay on the north-west, and Papua Gulf, on the south-east coast. The *Stanley Range* runs through the south-east peninsula to South-East Cape. Highest summit, Mount Owen Stanley, a double peak, 13,200 feet. In the western part of the island, are the *Snowy Mountains*. Sago-palm and camphor trees are abundant. Nutmegs and other spices are found in the woods. Yams, coconuts, rice, maize, and the sugar cane are plentiful. Gold has been found. The natives are mostly Papuan Negroes. Their skin is black, and their hair woolly and tufted. The western half of the island is under the control of the Dutch. The Australians are desirous that Britain should have control of the eastern half. Papua was discovered by Torres in 1606.

(5.) **Arroo Isles**, a group consisting wholly of coral, in the Arafura Sea, about 80 miles, south-west of Papua. They extend from north to south about 130 miles. *Cobror*, 70 miles in length by 20 in breadth, is the largest. *Debo*, in the island Warud, is the greatest mart in the north of Australasia. The chief products are pearl, mother of pearl, tortoise shell, birds of paradise, and trepang or sealug. The Arroo Isles belong to the Dutch.

(6.) **Timorlaut**, in the Arafura Sea, south-west of the Arroo Isles, is mountainous and wooded. Length, 90 miles; greatest breadth, 40 miles.

(7.) **Admiralty Isles**, a cluster of islands 150 miles north-east of Papua, discovered by Schouten in 1616. They are enclosed by barrier reefs. The largest is nearly 60 miles in length. The inhabitants are of the Malay race.

(8.) **New Britain**, an archipelago, east of New Guinea, discovered by Dampier in 1700, consists mainly of two large, mountainous, wooded, and populous islands. The chief products are coconuts, sago, yams, and ginger. The natives belong to the Papuan race.

(9.) **New Ireland**, an island north-east of New Britain, from which it is separated by St. George Channel. Discovered by Carteret in 1767. The hills rise to the height of 1500 or 2000 feet, and are covered with luxuriant forests. The natives are black, woolly-haired savages of the Papuan race. New Ireland is 200 miles long, and has an average breadth of 20 miles.

(10.) **Salomon or Solomon Isles**, an archipelago 600 miles in length, extending south-east from New Ireland. The group was discovered by the Spaniard Mendana in 1567, and so named by him on account of its supposed great wealth. The islands are of volcanic origin, and except the two westernmost, are sparingly fringed with coral. They are mountainous and clothed with forests. The chief islands in the direct line with New Ireland are *Bougainville*, *Choiseul*, *Isabel*, and *Malaysia*. In a parallel range are *Guadalcanar* and *San Christoval*. The inhabitants are Malays and Papuan Negroes.

(11.) **Queen Charlotte Isles**, a volcanic group between the Salomon Isles and the New Hebrides. The chief islands are *Santa Cruz*, *Nitendi*, and *Vanikoro*. La Pérouse was shipwrecked on Vanikoro in 1788, and his fate was unknown until 1872.

(12.) **Louisiade Archipelago**, a group of over eighty islands, extending south-east from New Guinea. It is a region of extensive reefs. The natives are Papuan Negroes.

(13.) **New Hebrides**, a volcanic group of twenty large and many small islands south of Queen Charlotte Isles. They were discovered by Quiros in 1595, but received their name from Captain Cook in 1774. The largest island of the group is *Espirito Santo*. The other principal islands are *Malticollo*, *Erromango*, where the zealous missionary Williams was murdered in 1839, and *Tanna*, which contains one of the largest volcanoes in the Pacific. The chief products are sandal wood, figs, oranges, cotton, and sugar cane. The natives belong to the Papuan race, and are fierce and warlike. They number about 150,000. The area of the group is estimated at 5720 square miles.

(14.) **New Caledonia** is a volcanic island, 600 miles north-east of Australia, on the margin of the Coral Sea. It was discovered by Captain Cook in 1774. The French took possession of it and the adjacent *Isle of Pines* in 1853. A range of mountains, rising in the centre to 8000 feet, runs through the whole length of New Caledonia. The island is fertile and contains coal. The trepang fishery is a source of wealth. The natives are Papuan Negroes. Capital, *Noumea*. Length, 200 miles; breadth, 34 miles; area, 6785 square miles. A coral reef extends along the western coast, and for 50 miles to the south and 150 miles to the north, a distance in all of 400 miles. The *Loyalty Isles*, which run parallel to New Caledonia on the east, are a dependency.

## (B.) MALAYSIA.

1. **Name.**—Malaysia is so called from the Malays, who form the great bulk of the native population. It is also called the East Indian or Asiatic Archipelago.

2. **Boundaries.**—It is bounded on the north-west by the Strait of Malacca and the China Sea; on the east by the Pacific Ocean; on the south by the Arafura Sea and Indian Ocean; and on the west by the Indian Ocean.

3. **Form.**—Malaysia has a somewhat triangular form, with the Bashee Islands at the apex and the Sunda Islands at the base.

4. **Position.**—Malaysia forms the north-west portion of Oceania. It extends from 21° N. Lat. to 11° S. Lat.; and from 95° 25' to 131° 40' E. Long.

5. **Extremities.**—North, the *Bashee Islands*; south, *Sandalwood Island*; east, *Ceram Island*; west, *Acheen Head*, in Sumatra.

6. **Extent.**—The length from west to east is about 2500 miles, and the breadth from north to south about 2100 miles. The land area is estimated at 730,000 square miles.

7. **Population.**—The estimated population amounts to about 33,500,000.

8. The principal members are given in Table 7.

9. **Seas.**—The *Sulu or Mindoro Sea*, between the Philippine Islands and Borneo; *Celebes Sea*, between the Philippines and Celebes; *Java Sea*, between Borneo and Java; *Floris Sea*, between Celebes and Floris; *Banda Sea*, between Bouru and Ceram on the north, and Timor and Babba Island on the south.

10. **Straits.**—*Malacca Strait*, between Sumatra and Malaya, leading from the Indian Ocean to the China Sea. *Sunda Strait*, between Sumatra and Java, leading from the Indian Ocean to the Java Sea. *Macassar Strait*, between Borneo and Celebes, joining the Java Sea and Celebes Sea. *Molucca Passage*, between the north peninsula of Celebes and Gilolo Island. *Carimahi or Billiton Passage*, between Borneo and Billiton, joining the China and Java Sea. *Balabee Strait*, joining the China Sea and the Mindoro Sea.

11. (1.) **The Sunda Islands** are divided into two groups, the Greater Sunda, which comprise Sumatra and Java; and the Lesser Sunda, which comprise Bali, Lombok, Sumbawa, Sandalwood, Floris, Solor, Wetter, Timor, and others.

(a.) **Sumatra** lies south-west of the Malacca Peninsula. It is intersected by the equator. The *Barisan Mountains*, which extend through the whole length of the island, have lofty volcanic cones rising from six to ten thousand feet. Highest summit, Mount Korinchi, 11,820 feet. The chief products of Sumatra are pepper, ginger, rice, sago, gold dust, sulphur, gutta percha, and camphor. The tiger, elephant, rhinoceros, and orang outang are found in Sumatra. The chief native states are *Acheen* in the north; *Siak* in the east; and the *Battas country* in the interior. *Acheen* (36,000), the capital of the state of the same name, has a good port. Sumatra was discovered by the Dutch in 1600, and they have had settlements there since 1649. They now hold the western coast as far north as 2° N. Lat., and the eastern as far as 1° 30' S. Lat. Their principal settlements are: on the west coast, *Padang* (20,000) and *Bencoolen* (13,000); on the east coast, *Palembang* (25,000), situated on the River Moesi, and, on the south coast, *Lampung*. Length of Sumatra, 1025 miles; mean breadth, 160 miles; area, 172,250 square miles. Population, 2,600,000.

Adjoining Sumatra is the island of *Banca*, celebrated for its inexhaustible tin mines; *Billiton*, famous for iron and timber; and *Bintang*, which contains the free port of *Rhia*.

South of Sumatra are the *Coco or Keeling Islands*, a low group of coral islands. A short distance from the shore, the sea is 1200 fathoms deep.



PICKING THE COFFEE BERRY.

(b.) **Java** lies south-east of Sumatra. It was discovered by the Portuguese in 1511, but is now the chief seat of Dutch power in the east. It is traversed in the direction of its greatest length by a mountain chain, a prolongation of the mountains of Sumatra, and contains more volcanoes than any other country of equal area. Several of its thirty-six volcanic peaks rise to the height of 10,000 or 11,000 feet, and eleven are in a state of activity. Highest summit, Mount Semeru, 12,235 feet. Near Batour, is the *Gueva-Upas*, or *Valley of Death*, half a mile in circuit, where neither animal nor vegetable life can exist, owing to the effects of the air, which is poisoned by sulphuretted hydrogen issuing from the ground. The upas tree flourishes in the woods, also the teak tree, which is found nowhere else in Malaysia. On account of its great fertility, Java is called the granary of the Eastern Archipelago. The principal exports are rice, coffee,

sago, sugar, tea, nutmegs, tobacco, ginger, cinnamon, cotton, and indigo. Java is divided by the Dutch into West, Middle, and East Java. *Betavia* (500,000), on the north-west coast, is the capital of West Java and of the Dutch East India possession. It is an important commercial city, and has one of the finest harbors in the world. It is a free port. *Samarang*, on the north coast, the capital of Middle Java, is a fortified seaport, with a flourishing trade. *Sourabaya*, also on the north coast, the capital of East Java, is a strongly fortified city, with a naval arsenal, ship-building yards, and a cannon foundry. *Surakarta* and *Djohokarta* are capitals of native states. Length of Java, 630 miles; breadth, from 40 to 130 miles; area, including *Madura*, 51,974 square miles. Besides *Madura*, the island of *Bali* is dependent on Java. Its chief town is *Port Badong*. Population of Java, in 1817, 13,799,798.

(c.) Of the remaining Sunda Islands, *Lombok*, *Sumbawa*, *Sandalwood* or *Sumba*, *Floris*, and the western three-fourths of Timor also belong to the Dutch. They form the Timor Residency. The seat of Government is *Cospang*, on the south-west coast of Timor. In Sumbawa is the volcano of *Tombo*, 9040 feet high, whose eruptions in 1815 lasted for three months, and are the most terrible on record; the sound of the explosions was heard at the distance of 100 miles. Only twenty-six persons survived in the island out of a population of twelve thousand. *Bima*, on the north coast of Sumbawa, has a good harbor. The Portuguese own the eastern fourth of Timor, *Solor*, and the small island of *Kambing*, off the north coast of Timor. The Portuguese capital of Timor is *Duty*, on the north coast. Length of Timor, 300 miles; breadth, 40 miles.



THE DYAKS.

(2.) **Borneo** is situated north of Java, from which it is separated by the Java Sea. It is the great central island of Malaysia, and the third largest island on the globe, Greenland and Papua being the largest. It is intersected by the equator. The climate is healthy, and favorable to Europeans. On the western side a great mountain chain runs from north-east to south-west, and from a central knot branches diverge to the east and south-east. The highest summit is *Kina Balu*, 13,698 feet, in the extreme north; east of which is a large lake of the same name. Borneo is one of the best

watered countries in the world, possessing numerous navigable rivers. Vegetation is rich, including the gutta percha tree, ebony, coconut, sago, rice, ginger, cinnamon, nutmeg, and cotton. Among its numerous animals may be named the elephant, orang outang, deer, bear, tiger, and a carnivorous mammal resembling both the otter and the platypus. Minerals are abundant, among which are coal, gold, diamonds, tin, platinum, antimony, copper, and iron. The aborigines are called Dyaks, a race belonging to the Malay family. The other inhabitants are Chinese and Europeans. Two-thirds of the island, comprising the centre and south, belong to the Dutch. *Pontianak* (20,000) is the seat of government for the west division, and *Banjarmasin* (30,000) for the south and east divisions. The native state, *Bruni* or Borneo, is on the north-west coast. Its capital, *Bruni* (40,000), was taken by the British in 1846. The province of Sarawak, on the north-west coast, was ceded to Britain in 1843. The capital, *Sarawak* (15,000), or *Kuchin*, is a station for the suppression of piracy. Length of Borneo, 800 miles; breadth, 700 miles; area, 280,000 square miles. Population, about 1,750,000.

*Labuan*, a small island with a fine harbor, about six miles off the north-west coast of Borneo, belongs to Britain. It has excellent coal. Its capital, *Victoria*, is a free port, from which are exported edible bird's nests, camphor, pearls, gutta percha, trepang, and sago. The *Natuna Isles*, and the *Anambas*, between Borneo and the Malay Peninsula, belong to the Borneo group.

(3.) **Celebes** lies east of Borneo. It was discovered by the Portuguese in 1512. It has a very singular form, consisting of four large peninsulas, projecting from a central mass. Its scenery is very picturesque. The mountains are covered with rich and valuable trees, among which is the famous *badeau* or Macassar oil tree. The anoa, a fierce kind of antelope, about the size of a sheep, is peculiar to Celebes. The chief products are rice, sago, tobacco, yams, and sugar. Gold, copper, iron, and tin abound. The aborigines in the interior are called *Horaforas*. An intelligent race, called *Bugis*, occupy the coasts. The Dutch expelled the Portuguese from the island in 1660. Their chief settlements are *Macassar*, in the south-west peninsula, and *Menado* and *Kema* in the north peninsula.

(4.) **The Moluccas or Spice Islands** comprise the islands lying between Celebes and New Guinea. The archipelago is almost wholly under Dutch rule. The largest are Gilolo, Ceram, and Bouru. *Gilolo* resembles Celebes in form, consisting of four peninsulas. It is moun-

tainous and densely wooded. *Ceram* is mountainous and fertile, and has immense forests of *ago palm*. *Buru* is noted for its rice and fruit. *Ambuyna*, a small island south of Ceram, yields the best cloves. It contains *Ambuyna* (13,000), the Dutch capital of the Moluccas. The *Batu la Isles*, south of Ceram, yield the best nutmegs and mace. *Ternate*, a small island west of Gilolo, famous for the great variety of its spices, has a high volcanic peak. It is a military post for the defence of the Dutch possessions. The Moluccas are of volcanic origin, and contain several active volcanoes.

(5.) **The Philippine Islands** lie north-east of Borneo. They are separated from Further India by the China Sea, and from Borneo and Celebes by the Celebes Sea. They were discovered in 1521, by Magellan, who in that year was killed in a skirmish with the natives of Zebu. They were subsequently named after Philip II. of Spain. The archipelago consists of about 1300 islands, of which *Luzon*, in the north, and *Mindanao*, in the south, are the largest. *Samar* and *Mindoro* rank next in size. The whole group is of volcanic formation, and contains numerous active volcanoes, solfataras, and hot springs. Destructive hurricanes and earthquakes are frequent. The climate is moist, but not unhealthy. Vegetation is luxuriant, and minerals are abundant. The whole group is largely under the control of Spain. *Manila* (160,000), on the south-west coast of Luzon, is the capital of the Spanish possessions in the East Indies. It is a fortified city, and has an extensive trade, exporting sugar, cigars, rice, indigo, and rum. The Spaniards possess the *Bashi Isles* to the north of the Philippines.

(6.) **The Sulu Group**, between Mindanao and Borneo, consists of above sixty islands, the chief of which is *Cigayan*, in the centre. The Sulus belong to Spain.

(7.) **The Sanguir Group**, in the Celebes Sea, between Celebes and Mindanao, consists of forty-six small islets. *Singuir*, the largest, is 30 miles in length, and 10 in breadth. Its surface is mountainous, and in its centre is a volcano.

### (C.) MICRONESIA.

1. **Name.**—Micronesia, so called from the numerous groups of small islands which compose it, occupies the north-east division of Oceania.

2. **Position.**—It extends from the equator to 28° N. Lat. and from the Philippine Islands on the west, to and including the Sandwich Islands on the east.

3. **Area.**—Its land area is estimated at 10,000 square miles.

4. **Population.**—The estimated population amounts to 200,000.

5. **Divisions.**—The principal members are given in table 7, page 136.

6. **Groups.**—(a.) **The Bonin Isles**, a volcanic group of eighty-nine small islands, about 500 miles south-east of Japan. They were called by the early Spanish navigators the *Arzobispo* or *Archbishop Islands*. Whaling stations have been established, by Europeans, at Peel and Kater, the chief islands of the group.

(b.) **The Ladrones or Marianne Isles**, a volcanic group of seventeen isles, five of which are uninhabited, lying 1400 miles east of the Philippine Isles. They belong to Spain. They are a picturesque and fertile group, yielding cotton, sugar, rice, and indigo. The largest island, *Guajin*, is 90 miles in circuit, and contains the capital, *Aganna*. They were discovered by Magellan in 1521, and named *Ladrones*, or *Robbers*, from the thievish propensities of the natives. They were called the *Marianne Isles* in honor of Mary Anne, the wife of Philip IV. of Spain.

(c.) **The Pelew Isles**, about twenty in number, surrounded by dangerous reefs of coral, lie 500 miles east of the Philippines. They are hilly and well wooded, and are under a native government.

(d.) **The Caroline Archipelago**, extends over 1000 miles from the Pelew group on the west to the Marshall group on the east. It consists of sixty groups of atolls, with about 500 islands, all of which, except the Yap group, are of coralline formation. The archipelago was discovered by Lazcano in 1686 and named after his sovereign, Charles II. of Spain, and is nominally under Spanish rule. The inhabitants are Malays, and are skilful sailors.

(e.) **The Marshall Isles** lie to the east of the Caroline. They comprise several clusters of low coral isles. The dry land is not over one-hundredth part of the whole surface of the islands.

(f.) **The Gilbert or Kingsmill Isles** are a group of fifteen low islands of coral formation, south of the Marshall Isles. About one-half of the group affords a good entrance and safe anchorage. Through the openings in the reefs a rapid current usually flows outward, especially during the ebbing tide. They contain about 60,000 inhabitants.

(g.) **The Sandwich Islands** are situated in the north-east of Oceania, about 3000 miles west of Mexico. They are volcanic, and form a curved line extending 400 miles from Hawaii or Owhyhee, the principal island. The group comprises fifteen islands, eight of which are inhabited. The four chief members of the group are *Hawaii*, *Kanai*, *Mani*, and *Oaku*. In Hawaii are *Mouna Kea*, 13,951 feet, the highest summit in Oceania, and *Mouna Loa*, an active volcano, 13,760 feet high. On the eastern flank of Mouna Loa, at an elevation of 3783 feet, is the remarkable *Kilauea* crater, which has a circuit of seven and a half miles, and a depth of 1000 feet. The climate of the Sandwich Islands is mild and agreeable. The exports are whalebone, whale oil, coffee, and sugar. *Honolulu* (14,852), on the island of *Oahu*, is the capital of the group. The inhabitants are advanced in civilization, and are governed by a native queen. The Sandwich Islands were discovered by Cook, in 1788, and were named in honor of Earl Sandwich, First Lord of the Admiralty.

### (D.) POLYNESIA.

1. **Name.**—Polynesia means many islands.

2. **Position.**—It occupies the south-east part of Oceania, and includes all the islands and archipelagos south of the equator, lying between Australasia and 110° W. Long.

3. **Area.**—Its land area is estimated at 13,000 square miles.

4. **Population.**—The estimated population amounts to about 240,000.

5. **Divisions.**—The principal members are given in Table 7, page 138.

6. **Groups.**—(a.) **The Fiji or Viti Islands** are the most westerly of the Polynesian islands. They are mostly of volcanic origin. The group consists of 225 members. The soil is fertile and the scenery very beautiful. The largest island, *Viti Levu*, has an area of about 4500 square miles. The capital of the group is *Levuka*, in the island of *Ovatu*. The islands were discovered by Tasman in 1643. They became a British possession in 1874.

(b.) **The Samoa or Navigators' Islands** are situated about 450 miles north-east of the Fiji Isles. They form an extended chain from west to east. They are mountainous and fertile. The bread fruit tree grows luxuriantly. The natives are skilful sailors. In *Titula* the United States have a naval station.

(c.) **The Tonga, or Friendly Isles**, a triple group, lie south of the Navigators' Islands. They are of coral formation, and are highly fertile. The coconut is an important article of export. *Tongatabu*, the largest island, is 100 miles in circumference. The group is independent. The islands were discovered by Tasman in 1643. They were called the *Friendly Isles* by Cook, who received kind treatment from the natives.

(d.) **Hervey or Cook's Islands** lie east of the Friendly Islands. They were discovered by Cook in 1773. The largest is *Raratonga*, where the missionary Williams labored for many years.

(e.) **The Society Isles** lie north-east of the Hervey Isles. The beautiful and fertile *Tahiti*, or *Otaheite*, is the principal island, and is called the gem of the Pacific. They were discovered by Quirós in 1606, but were named by Cook in honor of the Royal Society, by whom he was sent out to observe a transit of Venus. They belong to France.

(f.) **The Austral Isles** lie south of the Society Isles. Hence their name. They are fertile and beautiful.

(g.) **Pauamotu, or Low Archipelago**, east of the Society group, consists of an immense number of coral islands. In the south of the archipelago the *Gambier Group* is of volcanic origin. The archipelago is a French possession. South-east of the *Gambier Group* is *Pitcairn Island* where the mutineers of the *Bounty* took refuge in 1789.

(h.) **The Marquesas** consist of thirteen islands lying 900 miles north-east of the Society Isles. They belong to France. They are mountainous, picturesque, and fertile. They were named after the Marquis de Mendoza, Viceroy of Peru, who sent out their discoverer, Mendana, in 1595.

(i.) **Easter Isle** is volcanic and is 2000 miles west of Chili, and 1500 miles from the nearest inhabited land. It is 12 miles long and 4 broad, and is noted for the remains of some ancient colossal statues and other remarkable antiquities, of the erection of which the present inhabitants have no tradition. Similar remains have been found on many other of the Pacific islands.

### ANTARCTIC REGIONS.

These Regions, which lie directly opposite to the Arctic or Northern Regions, include a vast area of nearly 4,000,000 square miles. On the map of the Western Hemisphere it will be seen that they project beyond the Antarctic Circle; the *South Shetland Islands* being only 450 miles from Tierra del Fuego, and *Victoria Land* only 540 miles from the Emerald Isles, and thence to New Zealand 650. *Enderby's Land* (see map of the Eastern Hemisphere) is but 1500 miles from Africa, and *Sabrina* and *Adelia Land* about the same distance from Tasmania. *Victoria Land* was discovered in 1840 by Sir James C. Ross. It is very cold and mountainous. Mount Erebus is a lofty volcanic peak, 12,400 feet above the sea. To the west is the south Magnetic Pole, also discovered by Sir James Ross, in 1831. There are likewise various islands, chiefly volcanic; but they are not habitable.

**ANTARCTIC OCEAN.**—As compared with the corresponding Arctic Ocean, little is known about this portion of the earth's surface, except that the cold and the dangers to navigation in the Southern Ocean greatly exceed those of the Northern, and that human beings and animals do not ordinarily subsist within its limits.



BREAD FRUIT TREE.



**SOUND SYMBOLS FOR THE PRONUNCIATION OF THE WORDS**

|              |              |              |              |               |              |
|--------------|--------------|--------------|--------------|---------------|--------------|
| ā as in fate | ā as in mate | ī as in pine | ō as in note | ōō as in boot | ū as in acut |
| ā as in fat  | ā as in met  | ī as in pin  | ō as in not  |               | ū as in cut  |

ā in far is represented by ah; ā in fall, by au; ē in there, by ā.

[illegible]

NOTE.—The pronunciation of the proper names in the above table, for obvious reasons, has only been approximately given.

Samoa, *sah-mə'ah*.  
 Sana, *sah-nah'*.  
 San Bartolomeo, *sahn bah-toll'-ə-mā-o*.  
 San Blas, *blahs*.  
 San Boria, *bor'ah*.  
 San Clemente, *clah'mahn(g)'*.  
 San Diego, *sahn də-'go*.  
 San Domingo, *də-ming'o*.  
 San Fernando, *sahn fer-nahn'do*.  
 Sangay, *sahn-gih'*.  
 San Joaquin, *sahn ho-ah-kien'*.  
 San Jose, *sahn ho-'ā*.  
 San Juan, *sahn juān-ā*; Sp.

Sa Mareno, *sahn mah-ré'no*.  
 San Matias, *sahn mah-ré'ahs*.  
 San Miguel, *sahn meh-ghe'l*.  
 San Pedro, *sahn pé'dro*.  
 San Salvador, *sahn sah'-valah-dor*.  
 Santa Cruz, *sah'ta' krúds*; Sp.  
                   *sahn'tah' króohs*.  
 Santa Fe, *sahn'tah' fa*.  
 Santareno, *sahn-tá'reno' (r')*.  
 Santiago, *sahn-tá'-ah'go*.  
 Saone, *són*.  
 Saratov, *sah'-rah'-töv*.  
 Sarawak, *sah'-rah'-wah'k*, or  
                   *sah'-rah'-wah'k'*.  
 Saskatchewan, *sah'-lá'-he'-wáun'*.  
 Sault St. Mary, *kí. að sahn mah-ré',*  
                   usually called *sónt' sént' má'ri*.  
 Saver, *só-mür'*.  
 Save, *sahn*, or *siv*.  
 Sayfoo, *or, shé'-wóoh'*.  
 Sayfah, *si'-ah'kh'*.  
 Scaffell, *sháh'fel*.

Schelde, or scheldt, *shéld*.  
Schemnitz, *shém'níts*.  
Schenectady, *she-nèk'ta-dí*.  
Scioto, *si-ó'to*.  
Schleswig, *shléz'wíg*.  
Schoharie, *sko-hár'í*.  
Shoodic, *shoo'dík*.  
Schuylkill, *shoo'd'l'kíl*.

Scilly, sĭl'ĭ.  
Scio, si'ō.  
Scutari, skŭd'lah-rĕ.  
Segre, sâ'grā.  
Segura, sa-goo'rah.  
Seine, sān.  
Senaar, or sennaar, sĕn-nahv'.  
Senegal, sĕn-e-gaul'.

Serra Espenbach, *sɛrr'ah sɛ-pɛn-yah'ɔɔ*.  
Shamo, *sa-shah'ka*.  
Seychelles, *sa-ɛh'el*.  
Sheme, *shah-mɛ'*.  
Shanghai, *shang-hi'*.  
Shary, *shah're*.  
Shasta, *shaz'ta*.  
Shenoudah, *shɛn-ah-dɔ'ah*.  
Shira, *shir-yah'*.  
Shumla, *shoon'lah*.  
Sierra Acarai, *si-tr'ah*  
*ah-kah-vɛ'*.  
Sierra Estrella, *es-trel-yah'*.  
Sierra Leone, *si-tr'ah si-lɔ'ne*.  
Sierra Madre, *ma-hi-tr'ah*.  
Sierra Morena, *mo-rə'h'nah*.  
Sierra Nevada, *no-və'h'nah*.  
Sihoon, *si-hoon'*.  
Siina, *si'ni*, or *si'n-ɔɔ*.  
Siunde, *siund*.  
Siungare, *siung-gah-pɔr'*.  
Siutu, *si-ut'*.

uring, *u-riŋ*, Fr. *z-riŋ*.  
 ŋir Daria, *ŋir dah'ri-ŋ-ah*.  
 ŋirir-ging, *ŋir-ŋing-ah-goor*.  
 Kack Rack, *ŋak' er rak*.  
 ŋacocota, *ŋa-kō'ta*.  
 cocotra, *ŋo-kō'trah*, or *ŋhō'ok'trah*.  
 ŋolala, *ŋo-fah'lah*, or *ŋō'fah'lah*.  
 ŋolama, *ŋō'f'ŋda*.  
 ŋotali, *ŋo-mō'ti*.  
 omersel, *ŋun'-er-sit*.  
 umme, *ŋum*.  
 nderhausen, *ŋun'-der-shou'-zen*.  
 ŋongaria, *ŋōng'-gik'-er-ah*.  
 ŋophia, *ŋo'f'ah*.  
 ŋorata, *ŋo-rak'ŋ*.  
 ŋorel, *ŋo-rr'*.  
 ŋoudan, *ŋōd'-an*.  
 ŋound, *ŋān'-dov*.  
 partivento, *ŋahr'-ŋ-ŋin'to*.  
 prezia, *ŋh'ŋ-ŋh*.  
 ŋutbergen, *ŋh'ts-bergh'en*.  
 ŋure, *ŋh'-n*.  
 ŋutauvoit, *ŋh'to-voi'*.

sent aw-gus-teen'.  
t. Croix, sent-kroy'.  
t. Geneviève, jen-e-vi-é'.  
teillacoom, sti-lah-koom'.  
teppe, tep.  
trehitz, strél-tis.  
tromboli, strom'bo-le.  
tuchona, too-kó'nah.  
tucra, too'kya.  
tudetie, sti-dét'ih.  
uez, sód'en; Arab. sód-#n, nt  
sód-ah'n'.



TABLE VI.—Continued.  
EUROPE.

|                                        | Feet.  |
|----------------------------------------|--------|
| Elburz (highest of Caucasus Mts.)..... | 18,571 |
| Blanc (Alps).....                      | 15,781 |
| Rosa (Alps).....                       | 15,723 |
| Finsteraarhorn (Alps).....             | 15,490 |
| Maladetta (Pyrenees).....              | 11,168 |
| Mount Etna, Sicily (volcano).....      | 10,874 |
| Mount Olympus, Greece.....             | 9,749  |
| Mount Vesuvius, Italy (volcano).....   | 9,360  |

## ASIA.

|                                                         |        |
|---------------------------------------------------------|--------|
| Everest, Himalaya Mountains (highest in the world)..... | 29,002 |
| Khinlingjunga, Himalaya Mountains.....                  | 28,178 |
| Dhaulagiri.....                                         | 26,000 |
| Hindoo Koosh Mountains (highest).....                   | 20,232 |
| Ararat, Armenia.....                                    | 16,564 |
| Fuji Yama, Japan.....                                   | 14,177 |

## AFRICA.

|                                  |        |
|----------------------------------|--------|
| Kilimanjaro, Central Africa..... | 20,065 |
| Teneriffe, Canary Islands.....   | 12,130 |
| Atlas Mountains (highest).....   | 11,400 |
| Ras Detchen (Abyssinia).....     | 15,386 |
| Kenia, Central Africa.....       | 18,000 |

## OCEANIA.

|                                  |        |
|----------------------------------|--------|
| Manna Loa, Sandwich Islands..... | 14,000 |
| Ophir, Sumatra.....              | 13,812 |
| Owen Stanley, Papua.....         | 13,205 |
| Semere, Java.....                | 12,000 |
| Egmont, New Zealand.....         | 8,840  |
| Australian Alps (highest).....   | 7,500  |

TABLE VII.

Heights of some of the Principal Plateaus.

## NORTH AMERICA.

|                                                                               | Feet. |
|-------------------------------------------------------------------------------|-------|
| Great Western Plateau, central and southern portions, average, 4,000 to 5,000 |       |
| Plateau of Andalus or Mexico, average, 7,000                                  |       |
| " Guatemala, average, 5,000                                                   |       |

## SOUTH AMERICA.

|                                                                                                    |        |
|----------------------------------------------------------------------------------------------------|--------|
| Plateau of the Andes, between ranges of the Andes from Caribbean Sea, to lat. 25° S., average..... | 10,000 |
| Table-land of Bogota, average, 8,000 to 10,000                                                     |        |
| Quito, ".....                                                                                      | 10,000 |
| " Pisco, ".....                                                                                    | 15,000 |
| " Cuzco, ".....                                                                                    | 11,380 |
| " Bolivia or Desaguadero 12,900                                                                    |        |
| Table-land of Brazil, average, 2,500 to 3,000                                                      |        |

## EUROPE.

|                                  |       |
|----------------------------------|-------|
| Spanish Plateau, average.....    | 2,250 |
| Plateau of Bavaria, average..... | 1,660 |

## ASIA.

|                                                   |        |
|---------------------------------------------------|--------|
| Plateau of Asia Minor or Anatolia, average.....   | 3,280  |
| Plateau of Arabia, central portions, average..... | 8,000  |
| Plateau of Iran or Persia, from 2,500 to 3,500    |        |
| Tibet, from 15,000 to 16,000                      |        |
| feet, average.....                                | 11,600 |

## AFRICA.

|                                                                    |       |
|--------------------------------------------------------------------|-------|
| Desert of Sahara, from a little below the level of the sea to..... | 4,000 |
| Table-land of Abyssinia, average, 8,000 to 9,000                   |       |

TABLE VIII.

Area of the Basins and Length of the Principal Rivers of each Grand Division.

| Name.                     | Area, Basin, sq. miles. | Length, Eng. miles. |
|---------------------------|-------------------------|---------------------|
| <b>NORTH AMERICA.</b>     |                         |                     |
| Mississippi (entire)..... | 1,550,000               | 4,300               |
| MacKenzie.....            | 590,000                 | 2,470               |
| St. Lawrence.....         | 600,000                 | 2,200               |
| Saskatchewan.....         | 360,000                 | 1,300               |
| Yukon.....                | 390,000                 | 2,000               |
| Columbia.....             | 298,000                 | 1,020               |
| Colorado.....             | 200,000                 | 1,000               |
| <b>SOUTH AMERICA.</b>     |                         |                     |
| Amazon.....               | 2,100,000               | 4,000               |
| Plata.....                | 1,240,000               | 2,500               |
| Orinoco.....              | 550,000                 | 1,000               |
| San Francisco.....        | 187,200                 | 900                 |
| <b>EUROPE.</b>            |                         |                     |
| Volga.....                | 527,500                 | 2,300               |
| Danube.....               | 304,100                 | 1,900               |
| Delneipr.....             | 195,500                 | 1,050               |
| Don.....                  | 176,500                 | 1,000               |
| Dnieva.....               | 131,400                 | 700                 |
| Rhine.....                | 75,000                  | 700                 |
| <b>ASIA.</b>              |                         |                     |
| Yenesei.....              | 1,110,000               | 3,200               |
| Yang-tse-kiang.....       | 930,000                 | 3,020               |
| Obi.....                  | 1,230,000               | 2,500               |
| Lein.....                 | 860,000                 | 2,700               |
| Amoor.....                | 786,000                 | 2,050               |
| Brahmapootra.....         | 330,000                 | 1,680               |
| India.....                | 312,000                 | 1,800               |
| Eufrates.....             | 196,000                 | 1,780               |
| Ganges.....               | 432,000                 | 1,500               |
| Irawaddy.....             | 331,000                 | 1,200               |
| <b>AFRICA.</b>            |                         |                     |
| Nile.....                 | 720,000                 | 4,000               |
| Niger.....                | 800,000                 | 2,000               |
| Congo.....                | 860,000                 | 3,500               |
| Zambesi.....              | 570,000                 | 1,450               |
| <b>AUSTRALIA.</b>         |                         |                     |
| Murray.....               | 500,000                 | 2,000               |

TABLE IX.

Area of the Principal Lakes of the World, and their Altitude and Depth.

| Name.                      | Area, Sq. Miles. | Altitude, Feet. | Depth, Feet. |
|----------------------------|------------------|-----------------|--------------|
| <b>OLD WORLD.</b>          |                  |                 |              |
| Caspian Sea, Asia.....     | 169,666          | 93              | 3,600        |
| Baikal, Asia.....          | 30,000           | 3,740           | 360          |
| Aral, Asia.....            | 27,000           | 36              | 220          |
| Albert Nyanza, Af.....     | 26,000           | 2,720           |              |
| Baikal, Asia.....          | 13,287           | 1,280           | 460          |
| Tchad, Africa.....         | 15,000           | 800             | 1,065        |
| Tanganyika, Africa.....    | 13,000           | 2,710           |              |
| Nyanza, Africa.....        | 8,000            | 1,522           |              |
| Ladoga, Russia.....        | 7,150            | 40              | 70           |
| Balkash, Asia.....         | 6,400            | 700             |              |
| Bangweulu, Africa.....     | 5,000            | 3,688           |              |
| Onega, Europe.....         | 3,200            | 237             |              |
| Eyre, Australia.....       | 4,100            | 70              |              |
| Gairdner, Australia.....   | 2,400            | 360             |              |
| Vener, Europe.....         | 1,920            | 114             |              |
| Urmiah, Asia.....          | 1,735            | 4,000           | 12           |
| Vetter, Europe.....        | 710              | 290             | 40           |
| Dead Sea, Asia.....        | 435              | 1,112           | 1,300        |
| Geneva, Europe.....        | 221              | 1,200           | 983          |
| Constance, Europe.....     | 183              | 1,200           | 964          |
| <b>NEW WORLD.</b>          |                  |                 |              |
| Superior, N. America.....  | 32,000           | 630             | 1,200        |
| Michigan, N. Amer.....     | 25,000           | 578             | 900          |
| Huron, N. America.....     | 24,000           | 578             | 1,000        |
| Erie, N. America.....      | 20,000           | 563             | 100          |
| Great Bear, N. Amer.....   | 14,000           | 230             |              |
| Winipeg, N. Amer.....      | 9,000            | 710             |              |
| Ontario, N. America.....   | 7,200            | 232             |              |
| Maracaibo, S. Amer.....    | 5,000            | 0               | 600          |
| Nicaragua, Cen. Am.....    | 3,500            | 128             |              |
| Titicaca, S. America.....  | 4,000            | 12,847          |              |
| Great Salt Lake, N. A..... | 2,800            | 4,210           |              |
| Atlatasca, N. Amer.....    | 3,400            | 600             |              |
| Nipigon, N. America.....   | 1,650            | 850             | 600          |
| Clapnet, N. America.....   | 1,750            | 2,854           |              |
| Tulare, N. America.....    | 700              | 500             |              |
| Champlain, N. Amer.....    | 57               | 93              | 280          |
| St. John, N. America.....  | 500              | 300             |              |
| L. of the Woods, N. A..... | 500              | 377             |              |
| Moosehead, N. Amer.....    | 300              | 1,073           |              |
| Tahoe, N. America.....     | 250              | 6,300           | 1,700        |

TABLE X.

Area and Population of the Seven Largest Islands.

| Name.                | Sq. Miles. | Population. |
|----------------------|------------|-------------|
| Greenland.....       | 600,000    | 9,800       |
| Borneo.....          | 300,000    | 1,750,000   |
| New Guinea.....      | 280,000    | 1,000,000   |
| Madagascar.....      | 244,000    | 3,500,000   |
| Sumatra.....         | 174,250    | 2,000,000   |
| Nippon or Hondu..... | 90,000     |             |
| Great Britain.....   | 87,903     | 34,250,000  |

TABLE XI.

Altitude of the Highest Inhabited Places and Cities.

| Name.                               | Feet.  |
|-------------------------------------|--------|
| Hanle, Tibet.....                   | 15,117 |
| Paseo, Peru.....                    | 14,098 |
| Potosi, Bolivia.....                | 13,350 |
| La Paz, Bolivia.....                | 12,250 |
| Cuzco, Peru.....                    | 11,540 |
| Quito, Ecuador.....                 | 9,520  |
| Bogota, Columbia.....               | 8,605  |
| Sherman, Wyoming Territory.....     | 8,000  |
| St. Bernard, Alps.....              | 7,065  |
| Mexico, Mexico.....                 | 7,473  |
| Aurora, Nevada Territory.....       | 7,446  |
| Virginia City, Nevada.....          | 6,380  |
| Truckee, California.....            | 5,834  |
| Salt Lake City, Utah Territory..... | 4,200  |

TABLE XII.

British Isles, in Detail.

| Divisions.                                 | Area in English sq. miles. | Population. |
|--------------------------------------------|----------------------------|-------------|
| England.....                               | 50,333                     | 22,792,507  |
| Scotland, with Shetland.....               | 7,178                      |             |
| Ireland, Orkney, and Hebrides Islands..... | 30,463                     | 3,495,457   |
| Ireland.....                               | 32,351                     | 5,337,294   |
| Man.....                                   | 227                        |             |
| Channel Islands.....                       | 70                         | 2,128       |

TABLE XIII.

British Empire, in Detail.

| Divisions.           | Area in English sq. miles. | Population. |
|----------------------|----------------------------|-------------|
| <b>EUROPEAN.</b>     |                            |             |
| British Isles.....   | 121,000                    | 34,250,000  |
| Holigoland.....      | 61                         | 1,013       |
| Gibraltar.....       | 2                          | 25,216      |
| Malta, Gozo, &c..... | 143                        | 160,000     |

TABLE XIII.—Continued.

British Empire, in Detail.—Continued.

| Divisions.                           | Area in Eng. sq. miles. | Population. |
|--------------------------------------|-------------------------|-------------|
| <b>ASIATIC.</b>                      |                         |             |
| India.....                           | 938,266                 | 191,407,070 |
| Ceylon.....                          | 24,102                  | 2,755,557   |
| Strait Settlements.....              | 1,145                   | 306,007     |
| Hong-Kong.....                       | 32                      | 124,108     |
| Labuan.....                          | 45                      | 4,808       |
| Andaman Islands.....                 | 2,551                   | 15,500      |
| Nicobar Islands.....                 | 225                     | 5,000       |
| Laccadive Islands.....               | 744                     | 6,800       |
| Perlin.....                          | 45                      |             |
| Aden.....                            | 76                      | 29,700      |
| Keeling Islands, &c.....             | 91                      | 900         |
| <b>AFRICAN.</b>                      |                         |             |
| Gambia.....                          | 21                      | 14,100      |
| Sierra Leone.....                    | 468                     | 36,536      |
| Gold Coast.....                      | 16,626                  | 580,291     |
| Cape Colony.....                     | 351,434                 | 1,464,000   |
| British Caffraria.....               | 3,463                   | 86,201      |
| Natal.....                           | 16,750                  | 325,500     |
| Other Territory in South Africa..... | 28,485                  | 130,477     |
| Meghar and Dependencies.....         | 1,080                   | 330,460     |
| St. Helena Island.....               | 48                      | 7,900       |
| Ascension Island.....                | 35                      | 505         |
| Tristan da Cunha.....                | 45                      | 85          |

OCEANIA.

|                    |           |           |
|--------------------|-----------|-----------|
| Australia.....     | 2,945,282 | 2,052,670 |
| Tasmania.....      | 26,215    | 107,000   |
| New Zealand.....   | 106,342   | 457,350   |
| Fiji Islands.....  | 8,654     | 125,000   |
| Other Islands..... | 246       | 187       |

AMERICAN.

|                         |           |           |
|-------------------------|-----------|-----------|
| Dominion of Canada..... | 3,513,325 | 3,719,745 |
| Newfoundland.....       | 40,200    | 150,000   |
| Bermuda Islands.....    | 40        | 15,000    |
| Honduras.....           | 13,501    | 24,710    |
| West Indies.....        | 12,774    | 1,066,501 |
| Guatemala.....          | 85,425    | 215,000   |
| Falkland Islands.....   | 4,701     | 803       |

TABLE XIV.

French Dominions, in Detail.

| Divisions.                      | Area in Eng. sq. miles. | Population. |
|---------------------------------|-------------------------|-------------|
| <b>EUROPEAN.</b>                |                         |             |
| France, with Corsica.....       | 204,091                 | 36,102,921  |
| <b>AFRICAN.</b>                 |                         |             |
| Algeria.....                    | 258,000                 | 2,022,500   |
| Senegal.....                    | 9,553                   | 215,511     |
| Gold Coast, &c.....             | 772                     | 186,133     |
| Reunion Island.....             | 960                     | 182,676     |
| St. Marie.....                  | 351                     | 300         |
| Mayotte, &c.....                | 201                     | 12,000      |
| <b>ASIATIC.</b>                 |                         |             |
| East India Establishments.....  | 197                     | 265,071     |
| Cochin China.....               | 21,717                  | 1,500,800   |
| <b>POLYNESIAN.</b>              |                         |             |
| New Caledonia.....              | 6,781                   | 50,200      |
| Moyalty Islands.....            | 820                     |             |
| Marquesa Islands.....           | 479                     | 6,000       |
| <b>AMERICAN.</b>                |                         |             |
| St. Pierre and Miquelon Is..... | 81                      | 4,750       |
| West India Possessions.....     | 1,096                   | 316,457     |
| Guiana.....                     | 35,070                  | 24,127      |

TABLE XV.

German Empire, in Detail.

| States.                               | Area in Eng. sq. miles. | Population. |
|---------------------------------------|-------------------------|-------------|
| <b>KINGDOMS.</b>                      |                         |             |
| Prussia.....                          | 131,400                 | 24,680,487  |
| Wurttemberg.....                      | 29,292                  | 4,863,450   |
| Baden.....                            | 7,531                   | 1,818,539   |
| Saxony.....                           | 5,788                   | 2,536,244   |
| <b>GRAND DUCHIES.</b>                 |                         |             |
| Baden.....                            | 5,821                   | 1,461,592   |
| Hesse.....                            | 2,964                   | 852,894     |
| Mecklenburg-Schwerin.....             | 5,138                   | 557,807     |
| Saxe-Weimar.....                      | 1,987                   | 286,163     |
| Mecklenburg-Strelitz.....             | 1,131                   | 96,382      |
| Oldenburg.....                        | 2,470                   | 314,459     |
| <b>DUCHIES.</b>                       |                         |             |
| Brunswick.....                        | 1,425                   | 311,764     |
| Saxe-Meiningen.....                   | 933                     | 187,907     |
| Saxe-Altenburg.....                   | 510                     | 132,122     |
| Saxe-Coburg and Gotha.....            | 760                     | 174,339     |
| Principality of Schaumburg-Lippe..... | 996                     | 203,457     |
| <b>PRINCIPALITIES.</b>                |                         |             |
| Schwarzburg-Rudolstadt.....           | 361                     | 75,523      |
| Schwarzburg-Sonderhausen.....         | 333                     | 67,191      |
| Waldeck.....                          | 438                     | 56,224      |
| Rhine, Older Line.....                | 123                     | 45,694      |
| Rhine, Younger Line.....              | 320                     | 80,032      |
| Schumburg-Lippe.....                  | 171                     | 32,059      |
| Lippe-Deimold.....                    | 438                     | 111,135     |
| <b>FREE CITIES.</b>                   |                         |             |
| Lubeck.....                           | 100                     | 87,000      |
| Bremen.....                           | 97                      | 145,000     |
| Hamburg.....                          | 158                     | 348,000     |
| <b>PROVINCE.</b>                      |                         |             |
| Alsace-Lorraine.....                  | 5,693                   | 1,840,738   |

TABLE XVI.

Russian Empire, in Detail.

| Divisions.        | Area in English sq. miles. | Population. |
|-------------------|----------------------------|-------------|
| <b>EUROPEAN.</b>  |                            |             |
| Russia.....       | 1,805,521                  | 65,704,529  |
| Poland.....       | 24,102                     | 6,026,421   |
| Finland.....      | 144,228                    | 1,832,138   |
| <b>ASIATIC.</b>   |                            |             |
| Caucasus.....     | 172,843                    | 4,893,332   |
| Siberia.....      | 4,820,189                  | 3,429,000   |
| Central Asia..... | 1,251,384                  | 3,800,628   |

TABLE XVII.

Spanish Dominions, in Detail.

| Divisions.                        | Area in Eng. sq. miles. | Population. |
|-----------------------------------|-------------------------|-------------|
| <b>EUROPEAN.</b>                  |                         |             |
| Spain, with Balearic Islands..... | 102,967                 | 16,551,647  |
| <b>AFRICAN.</b>                   |                         |             |
| Canary Islands.....               | 2,806                   | 283,859     |
| Islands in Gulf of Guinea.....    | 480                     | 6,590       |
| <b>ASIATIC.</b>                   |                         |             |
| Philippine Islands.....           | 112,150                 | 7,250,000   |
| Caroline Islands, &c.....         | 532                     | 18,800      |
| Marianne Islands.....             | 417                     | 5,610       |
| <b>AMERICAN.</b>                  |                         |             |
| Cuba.....                         | 45,833                  | 1,414,508   |
| Porto Rico.....                   | 5,506                   | 621,500     |
| Culebra, &c.....                  | 65                      | 3,451       |

TABLE XVIII.

Portuguese Dominions, in Detail.

| Divisions.                                      | Area in Eng. sq. miles. | Population. |
|-------------------------------------------------|-------------------------|-------------|
| EUROPEAN.                                       |                         |             |
| Portugal                                        | 34,501                  | 3,900,070   |
| AFRICAN.                                        |                         |             |
| Azores                                          | 697                     | 258,933     |
| Madeira Islands                                 | 315                     | 118,370     |
| Cape Verde                                      | 1,000                   | 75,000      |
| Senegambia Possessions.                         | 35,867                  | 2,800       |
| St. Thomas, Principe, &c.,<br>in Gulf of Guinea | 455                     | 8,561       |
| Angola, Benguela, &c.                           | 312,535                 | 3,000,000   |
| Mozambique, Sofala, &c.                         | 382,692                 | 3,000,000   |
| ASIATIC.                                        |                         |             |
| Goa, Salcete, &c.                               | 1,458                   | 474,234     |
| Damao, Diu, &c.                                 | 0                       | 53,283      |
| Thoor, &c.                                      | 552                     | 250,000     |
| Macao                                           | 17                      | 71,739      |



*The Ontario Press on Lovell's Intermediate Geography.*

Lovell's Advanced Geography contains useful information on 143 Countries or Places. It is embellished with 45 beautiful Maps and with 210 Illustrations.

Mr. John Lovell, of Montreal, has done much for the cause of Education in Canada for the past quarter of a century. He was the first publisher in the country to issue school books of a national character; and his geographies especially have been received with great favor by the Canadian public. His Intermediate Geography is designed to supersede his Easy Lessons in Geography, and it shows that he fully designs to keep pace with the educational progress of the country. The maps and printing of this geography surpass everything of the kind hitherto got up for use in our Canadian schools, and this book should eventually meet with a large sale.—*The Monitor, Brockville.*

It is vastly superior to any geography now in use in Canada. The Minister of Education has authorized its use in public schools, and it will no doubt be universally adopted.—*The Telegraph, Prescott.*

The large amount of introductory matter will make it popular for the comparatively young pupils for whom it is intended. The maps are models of distinctness. The typographical execution of the work is good; the paper well finished, while the binding is of a superior order.—*Huron Signal, Goderich.*

We have Lovell's Intermediate Geography, for which the Canadian public should feel profoundly grateful. The publisher has spared no pains to make the matter, the maps, the printing, and the binding superior to anything hitherto published in Canada, and he has succeeded. As a study of geography should be both interesting and profitable, so also there can be no reason why it should not be, with the facilities Mr. Lovell has placed at our disposal.—*The Standard, Port Perry.*

We warmly recommend the book to teachers and families. It is doubtful whether so complete a geographical work, for accuracy, perspicuity and simplicity as well as for size and cheapness, exists. It amply deserves public encouragement as a great contribution to educational literature, and we bespeak for it a wide circulation.—*The Star, Paris.*

This book is a valuable epitome of geographical knowledge prepared with care and presented in a very attractive manner. The maps and illustrations constitute a powerful aid in acquiring correct ideas of the subject matter.—*Daily News, Berlin.*

It is, undoubtedly, superior to any work of the class yet published in Canada. Among the most prominent of its features, is the large amount of introductory matter, suitable for the comparatively young pupils for whom the work is intended. The definitions are simple and of sufficient number to cover generally the leading features of the study of geography. The maps are deserving of great praise for their distinctness and modernness. The typographical execution of the work is extremely neat and tasteful; the paper is heavy and well finished, while the binding is a marked improvement on previous works. In fact, it is one of the most creditable works yet issued in Canada.—*Dumfries Reformer, Galt.*

It is designed to fill a want long felt in our schools, something between the very easy geographies of the primary classes and the more advanced texts. It is splendidly bound in a way calculated to stand the wear and tear of the school-room, it is capably printed in large type, on good paper. The maps and plates are above the average, and the letter-press is carefully prepared.—*Norfolk Reformer, Simcoe.*

It will prove invaluable to the schools. The matter, maps, printing and binding are superior to any similar work we have seen.—*True Banner, Dundas.*

The book is introductory to Lovell's Advanced Geography, and is authorized by the Minister of Education. It is profusely illustrated, and contains a full series of admirable maps. The book is printed and bound in a style that does credit to the publisher. We can confidently recommend this geography as a model of its kind to all teachers and scholars.—*Sentinel Review, Woodstock.*

This new work has been prepared with great care, and is a great improvement on the Easy Lessons. The maps are good, very neatly colored, distinct, and full enough for young pupils. It is authorized by the Minister of Education, and deserves public patronage.—*The Examiner, Barrie.*

It is not too much to say that it is superior to the very best we have hitherto seen published in the Dominion of Canada.—*Weekly Gazette, Barrie.*

The contents of the book appear to meet admirably the object for which it is intended. The printing and binding are excellent.—*Northern Advance, Barrie.*

The handsomest geography, yet issued in Canada, is Lovell's Intermediate Geography.—*The Packet, Orillia.*

Lovell's Intermediate Geography seems to be a valuable text book for beginners. As it is an authorized text book it will doubtless soon be in general use.—*The Times, Orillia.*

It is one of the neatest and most serviceable works that has been issued from the Canadian press. As a school text book we have no doubt but that it will commend itself to all experienced teachers. The maps are excellent, everything being clear, distinct, and accurate. The exercises are in the form of question and answer, which have been found so successful, especially in teaching Geography. It also contains a large number of fine illustrations. Taken altogether, contents, maps, and illustrations, it is a model of what an intermediate Geography should be, and we have no doubt but that it will at once come into general favor in our schools. School teachers will find it a great assistance in their work, and parents should see that their children are supplied with it. The binding appears to be much superior to that of any Geography which has heretofore appeared in our schools.—*The Examiner, Mount Forest.*

As a text book for elementary classes its plan is well conceived, and the information it contains is given in a form—that of question and answer—that is most easily grasped, and in a way that is most likely to be remembered. In it, geography in its three great divisions, mathematical, physical, and political, is tersely expounded. Its maps of the different countries of the world are well executed, and the numerous pictorial illustrations of the different subjects with which it deals are at once pleasing and instructive. No doubt it will be eagerly welcomed and highly prized by both teachers and scholars as an efficient aid in the hearing and preparation of lessons.—*Essex Record, Windsor.*

We have no hesitation in saying it is the finest in maps and letter-press that has ever been issued in Canada as a school book. The work is very fine and the arrangement of the matter excellent. The beauty and correctness of the maps alone is sufficient to commend it had it not other good points. It will soon find its way into our schools.—*The Planet, Chatham.*

The illustrations tend to make the study explicit and attractive to the rising generation. We feel free to say, without hesitation, its maps are by far the best in every respect of any in our school books. Undoubtedly it is a vast improvement on any work of the kind at present in use, and we have pleasure in directing the attention of our educational authorities, teachers, and parents, to it.—*The Tribune, Welland.*

Everything is being done to smooth the road to parnassian heights. Even the artist's skill is exerted to make learning attractive. Foremost in this work stands Mr. John Lovell, of Montreal. Under his fostering care, geography has become so attractive, that learning it is no more a task. We assert that Mr. Lovell has done more than any other man to make geography attractive to the young mind.

The study of it will give any one a very accurate knowledge of the world we inhabit, wanting which creates a great vacuum in the mind.—*The Journal, Cambridge.*

It is admirably adapted for school use. It contains an abundance of clear and accurate maps, running descriptions of the products and principal features of the various countries, and is just what is wanted to interest pupils.—*The Beacon, Stratford.*

The questions and answers are clear and pointed. The maps are very plain, not being over-crowded with names. A thorough study of this work will give one a good general knowledge of the geography of the world. It is superior to anything yet used in our schools.—*The Age, Strathroy.*

This is an excellent work for junior pupils. It is authorized by the Minister of Education.—*Western Dispatch, Stratford.*

The book is gotten up in superb style and well worthy of examination. It is superior to any one hitherto published in Canada.—*The Express, Oakville.*

It is a great improvement on all existing books of a similar nature. The definitions are much more explicit, the matter much more varied, the manner of instruction easier, and the general get up of the book superior.—*The Times, Boharrell.*

While we believe that too great care cannot be exercised by those having the control of our educational interests, in the changing of "Text Books," we think that every book introduced into our schools should be on its merits. From the hurried glance we have been able to take of this book we believe it will recommend itself to trustees and others who have the training of the young under their care. It is, we believe, superior to any one hitherto published in Canada.—*Petroleum Advertiser, Petrolia.*

It is one of the handsomest school books we have seen. It will, no doubt, supersede all others.—*South Simcoe News, Bradford.*

The Intermediate Geography has been prepared with great care, and is replete with descriptive and other information. It ought to be introduced into every school in the Dominion.—*The Chronicle, Durham.*

Its superior matter, distinctness of maps, excellency and neatness of binding, clear and elegant typography, fine quality of paper, renders it the most perfect geography now published in Canada. Inspectors, teachers and trustees of public and high schools will confer a favor on pupils by examining the work, as a thorough inspection will be sure of their introduction into schools.—*The Economist, Markham.*

It will, no doubt, commend itself for use in our public schools.—*The Era, Newmarket.*

It is eminently suited for beginners, and teachers cannot have a more valuable aid in their school-rooms. The arrangement of the work is simple, and possesses the great merit of being easy, intelligible to young pupils, while its general definitions and outline of the great divisions of the globe are as complete as could be desired.—*The Journal, St. Thomas.*

The work is beautifully executed, and is authorized by the Honorable the Minister of Education.—*The Express, Cobourg.*

This new work is a very decided improvement on the school geographies now in use, and the maps are unquestionably the best we have yet seen issued by a Canadian publisher. In every respect we consider the work a most valuable one, and hope to see it supersede the poor affairs with which our schools are now supplied.—*The Gazette, Dunnville.*

It is superior to any one hitherto published in Canada.—*The Chronicle, Ingersoll.*

We have received a copy of this work, which for excellence has never been surpassed in this country, whether for accuracy, the extent of information given, the clearness of the maps, or excellence of workmanship generally. Teachers and trustees should examine it and compare it with others of its class. If they do it is quite certain to be extensively introduced into the schools.—*The Observer, Tilsonburg.*

Lovell's Intermediate Geography is an excellent work. Among the many elementary school books which have of late years done so much to Canada, we have no hesitation in placing Lovell's series in the foremost rank; and after a careful perusal of this Geography, which has thirty-one colored maps, and forty-one excellent illustrations, can heartily recommend it to teachers and families. It is well bound, the paper is good, the type is clear, and the maps well finished.—*The Advertiser, Orangeville.*

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The maps are especially good, each division of a country being clearly defined, and the physical features nicely portrayed, while the definitions are simple as possible. We recommend it to the attention of parents and teachers.—*Free Press, Port Elgin.*

This useful work is designed as an introductory to Lovell's Advanced Geography, and is the most complete edition yet published. It is elaborately illustrated with colored maps, and presents a fine typographical appearance. To the friends of education we cordially commend the book.—*The Express, Embro.*

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Lovell's Advanced Geography contains useful information on 143 Countries or Places. It is embellished with 45 beautiful Maps and with 210 Illustrations.

in Detail.

| Area in Eng. sq. miles. | Population |
|-------------------------|------------|
| 1,805,321               | 65,704,559 |
| 49,150                  | 6,026,421  |
| 144,228                 | 1,832,138  |
| 172,840                 | 4,803,332  |
| 4,826,480               | 3,429,000  |
| 1,251,384               | 3,800,628  |

in Detail.

| Area in Eng. sq. miles. | Population |
|-------------------------|------------|
| 102,967                 | 16,551,647 |
| 2,696                   | 282,859    |
| 489                     | 8,590      |
| 112,130                 | 7,250,000  |
| 532                     | 18,800     |
| 417                     | 8,610      |
| 45,833                  | 1,414,508  |
| 3,596                   | 621,500    |
| 65                      | 3,451      |

in Detail.

| Area in Eng. sq. miles. | Population |
|-------------------------|------------|
| 34,501                  | 3,990,570  |
| 907                     | 258,933    |
| 315                     | 116,379    |
| 1,436                   | 76,003     |
| 35,867                  | 8,500      |
| 455                     | 21,681     |
| 312,582                 | 2,000,000  |
| 382,692                 | 306,000    |
| 1,458                   | 474,234    |
| 86                      | 53,283     |
| 5,523                   | 250,000    |
| 12                      | 71,739     |

in Detail.

| Area in Eng. sq. miles. | Population |
|-------------------------|------------|
| 12,680                  | 3,716,002  |
| 516,065                 | 24,301,411 |
| 53                      | 37,696     |
| 58,873                  | 69,600     |

in Detail.

| Area in Eng. sq. miles. | Population |
|-------------------------|------------|
| 140,561                 | 8,500,000  |
| 730,000                 | 17,500,000 |
| 213                     | 15,000     |
| 869,293                 | 14,272,000 |
| 344,423                 | 1,500,000  |
| 45,716                  | 5,000,000  |

in Detail.

| Area in Eng. sq. miles. | Population |
|-------------------------|------------|
| 3,727,706               | 3,914,500  |
| 2,083,414               | 27,000,000 |
| 743,248                 | 9,259,000  |
| 184,411                 | 1,491,000  |
| 417,500                 | 77,700     |
| 129                     | 1,700      |
| 14,068                  | 3,774,000  |

in Detail.

| Area in Eng. sq. miles. | Population |
|-------------------------|------------|
| 220,000                 | 1,611,000  |
| 210,000                 | 1,192,000  |
| 67,022                  | 286,000    |
| 21,731                  | 388,000    |
| 3,173                   | 94,000     |
| 11,140                  | 46,000     |
| 313,000                 | 65,500     |
| 2,677,000               | 35,000     |

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It is superior to anything hitherto published in Canada. — *The Advertiser, L'Orignal.*

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hope, therefore, this book will become of general use in our schools, and thus afford Mr. Lovell some reward for his labors of many years, and the untiring zeal which we know he has devoted to the perfecting of works of this class. — *Canadian Illustrated News, Montreal.*

C'est un ouvrage de mérite et d'une grande utilité pour les jeunes étudiants. Cette publication fait honneur à son éditeur, qui est loin d'être à son premier succès dans cette branche. — *Nouveau Monde, Montreal.*

We are most happy in being enabled, after a careful perusal of Lovell's Intermediate Geography, to say that we warmly recommend the book to teachers and families. It is doubtful whether so complete a geographical work, for accuracy, perspicuity and simplicity, as well as for size and cheapness, exists. It amply deserves public encouragement as a great acquisition to educational literature, and we bespeak for it a wide circulation. — *Daily Evening Mercury, Quebec.*

Un ouvrage précieux pour les écoles initiales. Lovell's Intermediate Geography. Ce livre est rempli de gravures et de cartes représentant les divisions et subdivisions des cinq parties du monde, les provinces maritimes, les principales villes de la province de Canada. Les gravures font voir les espèces de plantes et d'animaux particuliers à chaque pays. Rien n'est plus propre à développer l'intelligence des enfants, à leur graver les choses dans la mémoire, et à les préparer à aborder les difficultés qu'ils auront à rencontrer pour compléter leur éducation. — *Journal de Quebec, Quebec.*

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are engaged in teaching, and all agree that it is a work which ought to be in every school. — *The Observer, Cotnamville.*

It is, without doubt, the best work of the kind which has yet been published, and should, without delay, be introduced into general use throughout our public schools. — *The Gazette, Newbrake.*

This is another production of that indomitable Canadian publisher, Mr. John Lovell, to take the place of his Easy Lessons. The Geography before us, as an elementary school book, takes the lead of any former effort as an auxiliary to the rising generation, while its cheapness puts it within reach of all. We bespeak for the Intermediate Geography a large circulation, and teachers should lose no time in supplying themselves. — *The Observer, Cotnamville.*

It is especially adapted to be used in the schools in the Dominion of Canada, special pains having been taken by giving separate illustrated maps of the Provinces, as well as by the geography, to instill into the mind of the pupil a thorough practical knowledge in this important direction. It is not, however, by any means, exclusively devoted to this subject, as the abundance of excellent maps and instructive lessons with which it abounds amply testify. It is, without doubt, the best work of the kind which has yet been published, and should, without delay, be introduced into general use throughout our public schools. — *Stanstead Journal, Rock Island.*

It is designed for the use of scholars who are advancing to a higher grade. The maps and illustrations are excellent; and the work is of a superior degree, and speaks highly in favor of the publisher, Mr. John Lovell, whose name is even sufficient guarantee to any work issued from his establishment. — *New Dominion, Ormiston.*

**THE NOVA SCOTIA PRESS ON LOVELL'S INTERMEDIATE GEOGRAPHY.**

It consists of seven parts, the first containing the introductory lessons and those on the definitions, and the other six parts are devoted to the six great land-divisions of the globe. Each of the latter contains a general lesson on the continent which the part treats, followed by special lessons on the various countries of the continent. The same course has been followed in Part I. in the matter of discussing British North America, the United States and West India Islands. The general arrangement being similar to that of the Advanced Geography, and

the definitions in the introductory part being in form the same, renders the study of the Advanced Geography, as the authors up of the work themselves claim, more easy and agreeable to the pupil. The one is intended to give a vivid and general view of the subject, suited to a beginner; the other is more minute and thorough, as well as better adapted to the advanced pupil. — *Acadian Recorder, Halifax.*

We have a copy of this excellent work. As an introductory geography to advanced study, designed for the

use of schools, it is a valuable addition to school-book literature. Its manner of arrangement is admirable, the maps and cuts by which it is illustrated are first-class, and its treatment of the subject is in the main so lucid as to be easily grasped by the most stupid schoolboy. The book is printed in clear type, on excellent paper, and possesses that great virtue in a school-book, that of being strongly and neatly bound. It is authorized by the Honorable the Minister of Education for Ontario. — *Morning Chronicle, Halifax.*

It is an excellent work, and a neat volume of one hundred and four pages. Its binding is just such as is required for a school book, being very substantial, and it is printed in clear type on fine paper. This work is intended as an introduction to Lovell's Advanced Geography, now in press, being a rapid and comprehensive view of the subject suited to beginners. Part I. contains introductory lessons and those on definitions. Parts II., III., IV., V. and VI., treat of the different continents and their divisions. A very pleasing feature of the work is

Lovell's Advanced Geography contains useful information on 143 Countries or Places. It is embellished with 45 beautiful Maps and with 210 Illustrations.

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the forty-one illustrations, which are attractive as well as instructive. The thirty-one colored maps appear to be of a superior order.—*Evening Mail, Halifax.*

It appears to be admirably adapted to the purposes for which it is designed. It is neatly printed and handsomely illustrated, and in the matter of binding, is far ahead of the greater part of the text books used in Nova Scotia.—*Western Chronicle, Kentville.*

It is a most valuable elementary geography. The definitions are simple and concise, the maps plentiful and correctly drawn, the illustrations copious, and the letter-press clear and distinct. It is in every way suited to the purpose for which it is designed.—*The Tribune, Yarmouth.*

We consider it an excellent work. The binding is attractive in appearance and very durable. The type is clear, and the maps are well finished. The text is arranged in the form of question and answer, adapted in an admirable degree to fix the information definitely in the child's mind. The facts given are not in the way of dry details, but are of such a nature, and so presented, as to form a vivid picture of the countries treated. That part of the book relating to the Dominion is singularly well adapted to the requirements of those for whom the book is intended. We consider

the book as far superior to the peculiar book of similar grade now in use in the Maritime Provinces. No subject, perhaps, calls for more earnest attention on the part of educators in regard to its mode of presentation to very young pupils than that of geography. We believe that the use of Lovell's Geography in elementary schools would be attended with beneficial results.—*The Gazette, Ankerst.*

This book is preliminary to the more advanced work by the same publisher. The maps throughout the volume are clear, and are carefully topographical delineations of the various countries represented. The letter-press is superior, and the whole is an attractive and useful school book.—*Colchester Star, Truro.*

It is remarkable for the clearness of its definitions and explanations, which are made still plainer by copious illustrations. Besides these there are thirty-one excellent colored maps, which neither confuse the young learner by the profusion nor disappoint him by the lack of printed names. The maps embody the latest changes and discoveries and are well worth the price of the volume. The *font ensemble* of this work is a credit to the publisher.—*The Vindicator, Truro.*

Mr. John Lovell, the veteran publisher, of Montreal, has just issued a

new educational work. The Intermediate Geography appears to be well adapted for conveying a thorough knowledge of the general geography of the world to the minds of young scholars. Mechanically, the book is strongly and handsomely got up. As its name implies, it is designed to be introductory to an "Advanced Geography." The latter work will shortly be issued by the same publisher. The young book is made specially attractive with many and beautiful pictures, including a good one of Her Majesty Queen Victoria. Those who are acquainted with Lovell's former geographies will need no recommendation of these latest editions.—*Eastern Chronicle, New Glasgow.*

In respect to the matter, maps, printing, and binding, it is superior to any one hitherto published in Canada. It ought to be introduced into every school in the Dominion. We have no hesitation in recommending it to our readers.—*The Casket, Antigonish.*

The contents are well compiled, making the book admirably adapted for use in the junior schools of Canada. The descriptions of the various countries are ably written, and are concise and comprehensive. The book is handsome and strongly bound, and is printed in the very best style of the art. This Geography is intended as an introduction to a larger

work, which will be published shortly. If the latter prove as great an advance on school books of its kind, as the Intermediate does, it will demand the attention of our educationists, very forcibly. Aside from the intrinsic merits of the book, Mr. Lovell deserves the patronage of the Canadian public.—*Colonial Standard, Pictou.*

This work is authorized by the Hon. the Minister of Education, Ontario, and therefore requires little to be said by us in its favor. It is arranged under two general divisions. Part I. consists principally of definitions which are very full and made so plain that the youngest pupils in geography can scarcely fail to comprehend them. Part II. is devoted to general and particular geography of the different continents and countries treated under six different heads, in all of which there is as general a completeness as could be expected in a work occupying the position it claims to fill. The maps are numerous, highly colored and very lucid. We also notice a variety of subjects introduced not generally found in works of this kind. The book is admirably arranged, and we think it so attractive as to make the study of geography both pleasing and instructive to the young. We speak for it as an introduction into those schools in which new books of this description are required.—*The Times, Liverpool.*

### THE NEW BRUNSWICK PRESS ON LOVELL'S INTERMEDIATE GEOGRAPHY.

This geography will, doubtless, gain an extensive circulation in the schools, and has already been authorized by the Minister of Education, Ontario, for use in the schools in that Province.—*Daily Telegraph, St. John.*

Mr. Lovell is, we believe, the first publisher in Canada who undertook the publication of a geography, and surely did good service, for he brought prominently before the youth of eighteen years ago the resources, capabilities, geographical features of the country, with the excellent effect of teaching them at least how important Canada might become. His Intermediate Geography is intended as an introduction to the larger work, but it is complete enough for the ordinary purpose of the ordinary common school. It has a great many excellent colored maps, of good size, and distinctly lettered. It is also fully illustrated, and, besides its geographical lessons, it contains a variety of interesting information on natural history kindred to geography that will deeply interest the student. It is sold at the low price of sixty-five cents.—*The Daily Globe, St. John.*

It treats of 140 different countries, giving a summary of all that has been learned of them down to the present time. It has thirty-one colored maps and forty-one illustrations and maps. The illustrations, letterpress and binding are all in the excellent style for which Mr. Lovell's publications are noted.—*Morning Freeman, St. John.*

It will take its place as a valuable addition to Lovell's School Series. It consists of seven parts. The first is introductory, the remaining six are devoted to the six great land divisions of the Globe. This book, we feel assured, will be found invaluable in the school.—*New Brunswick Reporter, Fredericton.*

It is a first-rate work.—*Daily Times, Moncton.*

The work has secured the approval of the Minister of Education for Ontario, and appears admirably adapted for new beginners, calculated at once to render their studies pleasant and thorough. It is introductory to the more Advanced Geography soon to be published by the same author.—*Charleston Sentinel, Woodstock.*

We have received from the publisher, a copy of "Lovell's Intermediate Geography," which is intended to be introductory to the Advanced Geography by the same publisher. This book—the typography and general get-up of which is excellent—consists of seven parts. The first part contains the introductory lessons and those on the definitions, the remainder being devoted to the six great land divisions of the Globe. Each part contains a general lesson on the Continent of which the part treats, as also special lessons on the various countries of the Continent. This plan is also followed in Part Second, which is devoted to British North America, the United States, and the West India Islands. The information is prepared in a very attractive manner, so arranged as to give a rapid and general view of the subject, suited to young pupils. The typography and general get-up is excellent.—*Union Advocate, Newcastle.*

After a careful perusal of Lovell's Intermediate Geography, we warmly recommend it to teachers and families. It is doubtful whether so com-

plete a geographical work, for accuracy, perspicuity and simplicity, exists.—*The Standard, St. Andrews.*

We have taken time to look carefully over the book. Apart from the excellent mechanical portion of the work and the superior quality of the paper upon which it is printed, the new geography is a first-class school book, and one which is well adapted to give the pupil a good general knowledge of this Dominion in particular and the world in general. It brings the rudiments of a description of the earth, manners and customs of the people within the capacity of the youngest pupil, at the same time providing ample information for the more advanced.—*The Gleamer, Chatham.*

It has special lessons on the various countries of the continents, and is in every way compiled to render the study easy and agreeable to the pupil, and at the same time giving a rapid and general view of the subject, suited to a beginner. The book has been approved by the Minister of Education for Ontario.—*St. Croix Courier, St. Stephen.*

### THE PRINCE EDWARD ISLAND PRESS ON LOVELL'S INTERMEDIATE GEOGRAPHY.

This is one of the best school geographies that we have seen. The maps are the really valuable part of a geography. The text is useful in so far as it sends the pupil to the map. Geography teaches, as tasks, are the direct and least profitable of school studies, but obtaining a knowledge of the position of countries directly from the map, and at the same time acquiring information respecting the climate,

their productions and their history, is one of the pleasantest, as well as one of the most profitable of school exercises. The questions in the geography are chiefly valuable as they require a constant reference to the map. The pupil who masters Lovell's Intermediate Geography will be furnished with fuller and more correct information on that subject than is possessed by most educated men. It is decidedly the best

school geography that we yet have seen.—*The Patriot, Charlottetown.*

It appears to us to be an excellent work of the kind, and is intended to be introductory to Lovell's Advanced Geography, of which work it is designed to form a brief outline. The arrangement of the book appears to be admirable, and the mechanical execution first class. It is much more

strongly bound than any other work of the kind that we have seen.—*Island Argus, Charlottetown.*

The Intermediate Geography is well adapted to beginners, and gives a general idea of geography in a very simple form. It is just the kind of a geography that should be used in all the public schools.—*The Journal, Summerside.*

### THE NEWFOUNDLAND PRESS ON LOVELL'S INTERMEDIATE GEOGRAPHY.

It is a highly useful work, admirably suited to a beginner in the study of geography, and we should be glad to see it introduced into our schools. We cordially wish Mr. Lovell that measure of success with the Intermediate and Advanced Geographies which his energy and perseverance so well deserve.—*Royal Gazette, St. John's.*

It has many most excellent features about it: its map of Newfoundland is

very good, and its letterpress and general construction are alike creditable to its author and publisher.—*North Star, St. John's.*

It is a work singularly attractive in all its appearances and get-up. It is designed for the use of pupils, and is introductory to the study of a more advanced geography by the same publisher. Its plan and arrangement appear to us to be admirable, and it embraces a great variety of information of most interesting kinds which can-

not be found in ordinary geographies. It is altogether a work of modern character, discarding old-time modes and limits in application to geographical knowledge, and is adapted to the progressive demands of the present day.—*The Newfoundland, St. John's.*

The Intermediate Geography is a credit to Mr. Lovell. It is got up in first-class style, with maps and illustrations; and we would recommend it to the favorable notice of the school

inspectors of this colony.—*The Times, St. John's.*

The mechanical part of the work leaves little to be desired. The paper is very good, type clear, illustrations appropriate, maps fine, and binding very strong and substantial. It is well calculated to make the pupil acquainted with the position of the different countries, cities, etc., of the globe.—*The Standard, Harbor Grace.*

John Lovell & Son, Printers, Bookbinders, and Blank Book Manufacturers, Montreal.

Lovell's Advanced Geography contains useful information on 143 Countries or Places. It is embellished with 45 beautiful Maps and with 210 Illustrations.